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# SEQUENCE LISTING

<110> VOSSHALL, LESLIE  
AMREIN, HUBERT  
AXEL, RICHARD

<120> GENES ENCODING INSECT ODORANT RECEPTORS AND USES THEREOF

<130> 0575/58715-A-PCT-US/JPW/ADM/BJA

<140> US 09/932,227

<141> 2001-08-17

<150> PCT/US00/04995

<151> 2000-02-25

<160> 108

<170> PatentIn version 3.0

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<212> DNA

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Val	Ser	Ser	Leu	Leu	Tyr	Val	Val	Tyr	Ser	Ile	Thr	Val	Asn	Leu	Val	35	40	45	
Val	Thr	Val	Leu	Phe	Pro	Leu	Ser	Leu	Leu	Ala	Arg	Leu	Leu	Phe	Thr	50	55	60	
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 Ala Tyr Cys Ser Met Val Ile Phe Thr Ser Leu His Leu Gly Val Leu  
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 85 90 95  
 Ile Thr Asp Ala Leu Thr Met Thr Ile Ile Tyr Phe Phe Thr Gly Tyr  
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 Glu His Met Asn Arg Glu Tyr Arg His His Ser Leu Ala Gly Val Thr  
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 Phe Asp Ala Leu Gly Pro Gly Thr Tyr Thr Ala Val Tyr Ala Thr Gln  
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Phe Ala Phe Val Leu Pro Val Thr Ala Met Asn Leu Met Gln Phe Val
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Tyr Leu Leu Arg Met Trp Gly Asp Leu Pro Ala Phe Ile Leu Asn Met
50           55           60

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Leu Phe His Ser Ile Leu Asp Ser Thr Asp Glu Trp Gly Arg Gly Ile  
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Leu Arg Arg Ala Glu Arg Glu Ala Arg Asn Leu Ala Ile Leu Asn Leu  
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130 135 140  
Arg Glu Glu Arg Ala His Pro Phe Gly Val Ala Leu Pro Gly Val Ser  
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Gln Arg Leu Ala Ser Cys Ile Ala Tyr His Thr Gln Val Met Arg Tyr  
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Glu Ala Gly Thr Arg Phe Arg Lys Thr Leu Leu Ile Phe Leu Met Gln  
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1338

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 <213> DROSOPHILA MELANOGASTER DOR53

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Lys	Leu	Trp	Leu	Ala	Phe	Val	Asn	Ile	Val	Met	Leu	Ile	Leu	Leu	Pro	50	55	60	
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Tyr	Phe	Leu	Leu	Glu	Arg	Arg	His	Ala	Trp	Arg	Met	Tyr	Phe	Pro	Tyr	165	170	175	
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Leu	Ile	Ser	Met	Leu	Met	Ala	Arg	Cys	His	Ile	Ser	Leu	Leu	Lys	Gln	210	215	220	
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11

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Lys	Leu	Trp	Ser	Thr	Phe	Val	Thr	Leu	Val	Ile	Phe	Ile	Leu	Leu	Pro
	50					55					60				
Ile	Ser	Val	Ser	Val	Glu	Tyr	Ile	Gln	Arg	Phe	Lys	Thr	Phe	Ser	Ala
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Gly	Glu	Phe	Leu	Ser	Ser	Ile	Gln	Ile	Gly	Val	Asn	Met	Tyr	Gly	Ser
			85						90					95	
Ser	Phe	Lys	Ser	Tyr	Leu	Thr	Met	Met	Gly	Tyr	Lys	Lys	Arg	Gln	Glu
			100					105					110		

Ala	Lys	Met	Ser	Leu	Asp	Glu	Leu	Asp	Lys	Arg	Cys	Val	Cys	Asp	Glu		
		115						120					125				
Glu	Arg	Thr	Ile	Val	His	Arg	His	Val	Ala	Leu	Gly	Asn	Phe	Cys	Tyr		
		130					135					140					
Ile	Phe	Tyr	His	Ile	Ala	Tyr	Thr	Ser	Phe	Leu	Ile	Ser	Asn	Phe	Leu		
		145				150					155					160	
Ser	Phe	Ile	Met	Lys	Arg	Ile	His	Ala	Trp	Arg	Met	Tyr	Phe	Pro	Tyr		
				165					170					175			
Val	Asp	Pro	Glu	Lys	Gln	Phe	Tyr	Ile	Ser	Ser	Ile	Ala	Glu	Val	Ile		
			180					185					190				
Leu	Arg	Gly	Trp	Ala	Val	Phe	Met	Asp	Leu	Cys	Thr	Asp	Val	Cys	Pro		
		195					200						205				
Leu	Ile	Ser	Met	Val	Ile	Ala	Arg	Cys	His	Ile	Thr	Leu	Leu	Lys	Gln		
		210					215				220						
Arg	Leu	Arg	Asn	Leu	Arg	Ser	Glu	Pro	Gly	Arg	Thr	Glu	Asp	Glu	Tyr		
		225				230				235					240		
Leu	Lys	Glu	Leu	Ala	Asp	Cys	Val	Arg	Asp	His	Arg	Leu	Ile	Leu	Asp		
				245					250						255		
Tyr	Val	Asp	Ala	Leu	Arg	Ser	Val	Phe	Ser	Gly	Thr	Ile	Phe	Val	Gln		
			260					265					270				
Phe	Leu	Leu	Ile	Gly	Ile	Val	Leu	Gly	Leu	Ser	Met	Ile	Asn	Ile	Met		
		275					280					285					
Phe	Phe	Ser	Thr	Leu	Ser	Thr	Gly	Val	Ala	Val	Val	Leu	Phe	Met	Ser		
		290				295					300						
Cys	Val	Ser	Met	Gln	Thr	Phe	Pro	Phe	Cys	Tyr	Leu	Cys	Asn	Met	Ile		
		305			310					315				320			
Met	Asp	Asp	Cys	Gln	Glu	Met	Ala	Asp	Ser	Leu	Phe	Gln	Ser	Asp	Trp		
				325					330					335			
Thr	Ser	Ala	Asp	Arg	Arg	Tyr	Lys	Ser	Thr	Leu	Val	Tyr	Phe	Leu	His		
			340					345					350				
Asn	Leu	Gln	Gln	Pro	Ile	Ile	Leu	Thr	Ala	Gly	Gly	Val	Phe	Pro	Ile		
		355					360					365					
Ser	Met	Gln	Thr	Asn	Leu	Asn	Met	Val	Lys	Leu	Ala	Phe	Thr	Val	Val		
		370				375					380						
Thr	Ile	Val	Lys	Gln	Phe	Asn	Leu	Ala	Glu	Lys	Phe	Gln					
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 <211> 1308  
 <212> DNA  
 <213> DROSOPHILA MELANOGASTER DOR64

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 agttgggtcga tgctattgtg catcttgggtg tacctgccga caccatgct actgagagga 180  
 gtatacagtt tcgaggatcc ggtggaaaat aatttcagct tgagcctgac ggtcacatcg 240  
 ctgtccaatc tcatgaagtt ctgcatgtac gtggcccaac taacaaagat ggtcgaggtc 300  
 cagagtctta ttggtcagct ggatgcccg gtttctggcg agagccagtc tgagcgtcat 360  
 agaaatatga ccgagcacct gctaaggatg tccaagctgt tccagatcac ctacgctgta 420  
 gtcttcatca ttgctgcagt tcccttcgtt ttcgaaactg agctaagctt acccatgccc 480  
 atgtggtttc ccttcgactg gaagaactcg atggtggcct acatcggagc tctggttttc 540  
 caggagattg gctatgtctt tcaaattatg caatgctttg cagctgactc gtttcccccg 600  
 ctctactgt acctgatctc cgagcaatgt caattgctga tcctgagaat ctctgaaatc 660  
 ggatatgggtt acaagactct ggaggagaac gaacaggatc tggccaactg catcagggat 720  
 caaaacgcgc tgtatagatt actcgatgtg accaagagtc tcgtttcgta tcccatgatg 780  
 gtgcagttta tggttatttg catcaacatc gccatcacc tatttgcct gatattttac 840  
 gtggagacct tgtacgatcg catctattat ctttgctttc tcttgggcat caccgtgcag 900  
 acatatccat tgtgctacta tggaaccatg gtgcaggaga gttttgctga gcttcactat 960  
 gcggtattct gcagcaactg ggtggatcaa agtgccagct atcgtgggca catgctcatc 1020  
 ctggcggagc gcactaagcg gatgcagctt ctctcgccg gcaacctggg gcccatccac 1080  
 ctgagcacct acgtggcctg ttggaaggga gctactcct tcttcacct gatggccgat 1140  
 cgagatggcc tgggttctta gtagcccagt catttcactc acattctaca tcaagtagta 1200  
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<210> 12  
 <211> 379  
 <212> PRT  
 <213> DROSOPHILA MELANOGASTER DOR64

<400> 12

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			20					25					30			
Trp	Ser	Trp	Ser	Met	Leu	Leu	Cys	Ile	Leu	Val	Tyr	Leu	Pro	Thr	Pro	
		35					40					45				
Met	Leu	Leu	Arg	Gly	Val	Tyr	Ser	Phe	Glu	Asp	Pro	Val	Glu	Asn	Asn	
	50					55					60					
Phe	Ser	Leu	Ser	Leu	Thr	Val	Thr	Ser	Leu	Ser	Asn	Leu	Met	Lys	Phe	
65					70					75					80	
Cys	Met	Tyr	Val	Ala	Gln	Leu	Thr	Lys	Met	Val	Glu	Val	Gln	Ser	Leu	
				85					90					95		
Ile	Gly	Gln	Leu	Asp	Ala	Arg	Val	Ser	Gly	Glu	Ser	Gln	Ser	Glu	Arg	
			100					105						110		
His	Arg	Asn	Met	Thr	Glu	His	Leu	Leu	Arg	Met	Ser	Lys	Leu	Phe	Gln	
		115					120					125				
Ile	Thr	Tyr	Ala	Val	Val	Phe	Ile	Ile	Ala	Ala	Val	Pro	Phe	Val	Phe	
	130					135					140					
Glu	Thr	Glu	Leu	Ser	Leu	Pro	Met	Pro	Met	Trp	Phe	Pro	Phe	Asp	Trp	
145					150					155					160	
Lys	Asn	Ser	Met	Val	Ala	Tyr	Ile	Gly	Ala	Leu	Val	Phe	Gln	Glu	Ile	
				165					170					175		
Gly	Tyr	Val	Phe	Gln	Ile	Met	Gln	Cys	Phe	Ala	Ala	Asp	Ser	Phe	Pro	
			180					185					190			
Pro	Leu	Val	Leu	Tyr	Leu	Ile	Ser	Glu	Gln	Cys	Gln	Leu	Leu	Ile	Leu	
		195					200					205				
Arg	Ile	Ser	Glu	Ile	Gly	Tyr	Gly	Tyr	Lys	Thr	Leu	Glu	Glu	Asn	Glu	
	210					215					220					
Gln	Asp	Leu	Val	Asn	Cys	Ile	Arg	Asp	Gln	Asn	Ala	Leu	Tyr	Arg	Leu	
225					230					235					240	
Leu	Asp	Val	Thr	Lys	Ser	Leu	Val	Ser	Tyr	Pro	Met	Met	Val	Gln	Phe	
				245					250					255		
Met	Val	Ile	Gly	Ile	Asn	Ile	Ala	Ile	Thr	Leu	Phe	Val	Leu	Ile	Phe	
			260					265					270			
Tyr	Val	Glu	Thr	Leu	Tyr	Asp	Arg	Ile	Tyr	Tyr	Leu	Cys	Phe	Leu	Leu	

275		280		285
Gly Ile Thr Val Gln Thr Tyr Pro Leu Cys Tyr Tyr Gly Thr Met Val				
290		295		300
Gln Glu Ser Phe Ala Glu Leu His Tyr Ala Val Phe Cys Ser Asn Trp				
305		310		315
Val Asp Gln Ser Ala Ser Tyr Arg Gly His Met Leu Ile Leu Ala Glu				
		325		330
Arg Thr Lys Arg Met Gln Leu Leu Leu Ala Gly Asn Leu Val Pro Ile				
		340		345
His Leu Ser Thr Tyr Val Ala Cys Trp Lys Gly Ala Tyr Ser Phe Phe				
		355		360
Thr Leu Met Ala Asp Arg Asp Gly Leu Gly Ser				
370		375		

<210> 13  
 <211> 1152  
 <212> DNA  
 <213> DROSOPHILA MELANOGASTER DOR71g

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atcctgggtca ccttgtgggt tccactgcat ctgctgctgc atcttctgct acttccatct	180
accgctgagt tctttaagaa cctgaccatg tctctgactt gtgtggcctg cagtctgaag	240
catgtggccc acttgatatca cttgccgcag attgtggaaa tcgaatcact gatcgagcaa	300
ttagacacat ttattgccag cgaacaggag catcgttact atcgggatca cgtacattgc	360
catgctaggc gctttacaag atgtctctat attagctttg gcatgatcta tgcgcttttc	420
ctgttcggcg tcttcgttca ggttattagc ggaaattggg aacttctcta tccagcctat	480
ttccattcg acttgagag caatcgcttt ctcggcgcag tagccttggg ctatcaggta	540
ttcagcatgt tagttgaagg cttccagggg ctgggcaacg atacctatac cccactgacc	600
ctatgccttc tggccggaca tgtccatttg tggtoatac gaatgggtca actgggatac	660
ttcgatgacg agacggtggg gaatcatcag cgtttgctgg attacattga gcagcataaa	720
ctcttgggtgc gggtccacaa cctgggtgagc cggaccatca gcgaagtgca actgggtgcag	780
ctgggaggat gtggagccac tctgtgcatac attgtctcct acatgctctt ctttgtgggc	840
gacacaatct cgctgggtcta ctacttgggtg ttctttggag tgggtctgcgt gcagctcttt	900



cccagctgct attttgcag cgaagtagcc gaggagtgg aacggctgcc atatgcgac 960  
 ttctccagca gatggtacga tcaatcgcg gatcatcgat tcgatttgct catctttaca 1020  
 caattaacac tgggaaaccg ggggtggatc atcaaggcag gaggtcttat cgagctgaat 1080  
 ttgaatgcct ttttcgccac cctgaagatg gcctattccc tttttgcagt tgtggtgcgg 1140  
 gcaaagggtg ta 1152

<210> 14  
 <211> 390  
 <212> PRT  
 <213> DROSOPHILA MELANOGASTER DOR71g

<400> 14

Met	Val	Ile	Ile	Asp	Ser	Leu	Ser	Phe	Tyr	Arg	Pro	Phe	Trp	Ile	Cys
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		20						25					30		
Gln	Leu	Tyr	Val	Val	Leu	Leu	His	Ile	Leu	Val	Thr	Leu	Trp	Phe	Pro
	35						40					45			
Leu	His	Leu	Leu	Leu	His	Leu	Leu	Leu	Pro	Ser	Thr	Ala	Glu	Phe	
	50				55				60						
Phe	Lys	Asn	Leu	Thr	Met	Ser	Leu	Thr	Cys	Val	Ala	Cys	Ser	Leu	Lys
65				70					75					80	
His	Val	Ala	His	Leu	Tyr	His	Leu	Pro	Gln	Ile	Val	Glu	Ile	Glu	Ser
			85					90					95		
Leu	Ile	Glu	Gln	Leu	Asp	Thr	Phe	Ile	Ala	Ser	Glu	Gln	Glu	His	Arg
		100						105					110		
Tyr	Tyr	Arg	Asp	His	Val	His	Cys	His	Ala	Arg	Arg	Phe	Thr	Arg	Cys
	115						120					125			
Leu	Tyr	Ile	Ser	Phe	Gly	Met	Ile	Tyr	Ala	Leu	Phe	Leu	Phe	Gly	Val
	130					135					140				
Phe	Val	Gln	Val	Ile	Ser	Gly	Asn	Trp	Glu	Leu	Leu	Tyr	Pro	Ala	Tyr
145					150				155					160	
Phe	Pro	Phe	Asp	Leu	Glu	Ser	Asn	Arg	Phe	Leu	Gly	Ala	Val	Ala	Leu
			165					170						175	
Gly	Tyr	Gln	Val	Phe	Ser	Met	Leu	Val	Glu	Gly	Phe	Gln	Gly	Leu	Gly
		180						185					190		

Asn Asp Thr Tyr Thr Pro Leu Thr Leu Cys Leu Leu Ala Gly His Val  
 195 200 205  
 His Leu Trp Ser Ile Arg Met Gly Gln Leu Gly Tyr Phe Asp Asp Glu  
 210 215 220  
 Thr Val Val Asn His Gln Arg Leu Leu Asp Tyr Ile Glu Gln His Lys  
 225 230 235 240  
 Leu Leu Val Arg Phe His Asn Leu Val Ser Arg Thr Ile Ser Glu Val  
 245 250 255  
 Gln Leu Val Gln Leu Gly Gly Cys Gly Ala Thr Leu Cys Ile Ile Val  
 260 265 270  
 Ser Tyr Met Leu Phe Phe Val Gly Asp Thr Ile Ser Leu Val Tyr Tyr  
 275 280 285  
 Leu Val Phe Phe Gly Val Val Cys Val Gln Leu Phe Pro Ser Cys Tyr  
 290 295 300  
 Phe Ala Ser Glu Val Ala Glu Glu Leu Glu Arg Leu Pro Tyr Ala Ile  
 305 310 315 320  
 Phe Ser Ser Arg Trp Tyr Asp Gln Ser Arg Asp His Arg Phe Asp Leu  
 325 330 335  
 Leu Ile Phe Thr Gln Leu Thr Leu Gly Asn Arg Gly Trp Ile Ile Lys  
 340 345 350  
 Ala Gly Gly Leu Ile Glu Leu Asn Leu Asn Ala Phe Phe Ala Thr Leu  
 355 360 365  
 Lys Met Ala Tyr Ser Leu Phe Ala Val Val His Arg Glu Thr Gly Asn  
 370 375 380  
 Pro Leu Gln Arg Glu His  
 385 390

<210> 15

<211> 1137

<212> DNA

<213> DROSOPHILA MELANOGASTER DOR72g

<400> 15

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acaattttcg taaccatttg gtatccaatt cacctgattc tgggactggt tatggaaaga 180

tctttggggg atgtctgcaa gggcttacca attacggcag catgcttttt cgccagcttt 240

aaatttatatt gttttcgctt caagctatct gaaattaaag aaatcgaaat attatttaaa 300

gagctggatc agcgagcttt aagtcgagag gaatgcgagt ttttcaatca aaatacgaga 360  
 cgtgaggcga atttcatttg gaaaagtttc attgtggcct atggactgtc gaatatctcg 420  
 gctattgcat cagttctttt cggcgggtgga cataagctat tatatcccgc ctggtttcca 480  
 tacgatgtgc aggccacgga actaatattht tggctaagtg taacatacca aattgccgga 540  
 gtaagtttgg ccatacttca gaatttggcc aatgattcct atccaccgat gacattttgc 600  
 gtggttgccc gtcattgtaag acttttggcg atgcgcttga gtagaattgg ccaaggtcca 660  
 gaggaacaaa tatacttaac cggaaagcaa ttaatcgaaa gcatcgagga tcaccgaaaa 720  
 ctaatgaaga tagtggaatt actgcgagc accatgaata tttcgcagct cggccagttt 780  
 atttcaagtg gtgttaatat ttccataaca ctagtcaaca ttctcttctt tgcggataat 840  
 aatttcgcta taacctacta cggagtgtac ttcctatcga tgggtgttgga attattcccg 900  
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 ctaccctgg cggaagtgca gatcaaggcc ggtgggatga ttggcatcgg aatgaacgcc 1080  
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<210> 16  
 <211> 379  
 <212> PRT  
 <213> DROSOPHILA MELANOGASTER DOR72g

<400> 16

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		20						25					30		
Asn	Arg	Leu	Leu	Asp	Leu	Val	Ile	Thr	Ile	Phe	Val	Thr	Ile	Trp	Tyr
		35					40					45			
Pro	Ile	His	Leu	Ile	Leu	Gly	Leu	Phe	Met	Glu	Arg	Ser	Leu	Gly	Asp
	50					55					60				
Val	Cys	Lys	Gly	Leu	Pro	Ile	Thr	Ala	Ala	Cys	Phe	Phe	Ala	Ser	Phe
65					70					75					80
Lys	Phe	Ile	Cys	Phe	Arg	Phe	Lys	Leu	Ser	Glu	Ile	Lys	Glu	Ile	Glu
			85					90						95	
Ile	Leu	Phe	Lys	Glu	Leu	Asp	Gln	Arg	Ala	Leu	Ser	Arg	Glu	Glu	Cys

100					105					110					
Glu	Phe	Phe	Asn	Gln	Asn	Thr	Arg	Arg	Glu	Ala	Asn	Phe	Ile	Trp	Lys
		115					120					125			
Ser	Phe	Ile	Val	Ala	Tyr	Gly	Leu	Ser	Asn	Ile	Ser	Ala	Ile	Ala	Ser
	130					135					140				
Val	Leu	Phe	Gly	Gly	Gly	His	Lys	Leu	Leu	Tyr	Pro	Ala	Trp	Phe	Pro
145					150					155					160
Tyr	Asp	Val	Gln	Ala	Thr	Glu	Leu	Ile	Phe	Trp	Leu	Ser	Val	Thr	Tyr
			165						170					175	
Gln	Ile	Ala	Gly	Val	Ser	Leu	Ala	Ile	Leu	Gln	Asn	Leu	Ala	Asn	Asp
		180						185					190		
Ser	Tyr	Pro	Pro	Met	Thr	Phe	Cys	Val	Val	Ala	Gly	His	Val	Arg	Leu
		195					200					205			
Leu	Ala	Met	Arg	Leu	Ser	Arg	Ile	Gly	Gln	Gly	Pro	Glu	Glu	Thr	Ile
	210					215					220				
Tyr	Leu	Thr	Gly	Lys	Gln	Leu	Ile	Glu	Ser	Ile	Glu	Asp	His	Arg	Lys
225				230						235					240
Leu	Met	Lys	Ile	Val	Glu	Leu	Leu	Arg	Ser	Thr	Met	Asn	Ile	Ser	Gln
			245						250					255	
Leu	Gly	Gln	Phe	Ile	Ser	Ser	Gly	Val	Asn	Ile	Ser	Ile	Thr	Leu	Val
		260					265						270		
Asn	Ile	Leu	Phe	Phe	Ala	Asp	Asn	Asn	Phe	Ala	Ile	Thr	Tyr	Tyr	Gly
	275						280					285			
Val	Tyr	Phe	Leu	Ser	Met	Val	Leu	Glu	Leu	Phe	Pro	Cys	Cys	Tyr	Tyr
	290					295					300				
Gly	Thr	Leu	Ile	Ser	Val	Glu	Met	Asn	Gln	Leu	Thr	Tyr	Ala	Ile	Tyr
305				310						315					320
Ser	Ser	Asn	Trp	Met	Ser	Met	Asn	Arg	Ser	Tyr	Ser	Arg	Ile	Leu	Leu
				325					330					335	
Ile	Phe	Met	Gln	Leu	Thr	Leu	Ala	Glu	Val	Gln	Ile	Lys	Ala	Gly	Gly
		340						345					350		
Met	Ile	Gly	Ile	Gly	Met	Asn	Ala	Phe	Phe	Ala	Thr	Val	Arg	Leu	Ala
		355					360					365			
Tyr	Ser	Phe	Phe	Thr	Leu	Ala	Met	Ser	Leu	Arg					
	370					375									

<210> 17  
 <211> 1134

<212> DNA

<213> DROSOPHILA MELANOGASTER DOR73g

<400> 17

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tctttcatta cgatttttatt tcccggtgcat cttatactgg gaatgtataa aaagccccag    180
attcaagtct tcaggagtct gcatttcaca tcggaatgcc tttctgcag ctataagttt      240
ttctgttttc gttggaaact taaagaaata aagaccatcg aaggattgct ccaggatctc     300
gatagtcgag ttgaaagtga agaagaacgc aactacttta atcaaaatcc aagtcgtgtg     360
gctcgaatgc tttcgaaaag ttacttggtg gctgctatat cggccataat cactgcaact     420
gtagctgggtt tatttagtac tggtcgaaat ttaatgtatc tgggttggtt tccctacgat     480
tttcaagcaa ccgccgcaat ctattggatt agtttttctc atcaggcgat tggctctagt     540
ctgttgattc tggaaaatct ggccaacgat tcatatccgc cgattacatt ttgtgtggtc     600
tctggacatg tgagactatt gataatgcgt ttaagtcgaa ttggtcacga tgtaaaatta     660
tcaagttcgg aaaataccag aaaactcatc gaaggatatc aggatcacag gaaactaatg     720
aagataatac gcctacttcg cagcacttta catcttagcc aactggggcca gttcctttct     780
agtggaatca acatttccat aacactcatc aacatcctgt tctttgcgga aaacaacttt     840
gcaatgcttt attatgcggt gttctttgct gcaatgttaa tagaactatt tccaagttgt     900
tactatggaa ttctgatgac aatggagttt gataagctac catatgccat cttctccagc     960
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ctggttccag tgaatataaa agcaggtggt attgttggca tcgatatgag tgcatttttt    1080
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<210> 18

<211> 378

<212> PRT

<213> Drosophila Melanogaster DOR73g

<400> 18

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Trp Leu Tyr Trp Arg Leu Leu Gly Val Glu Gly Asp Tyr Pro Phe Arg
          20          25          30
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 35 40 45  
 Val His Leu Ile Leu Gly Met Tyr Lys Lys Pro Gln Ile Gln Val Phe  
 50 55 60  
 Arg Ser Leu His Phe Thr Ser Glu Cys Leu Phe Cys Ser Tyr Lys Phe  
 65 70 75 80  
 Phe Cys Phe Arg Trp Lys Leu Lys Glu Ile Lys Thr Ile Glu Gly Leu  
 85 90 95  
 Leu Gln Asp Leu Asp Ser Arg Val Glu Ser Glu Glu Glu Arg Asn Tyr  
 100 105 110  
 Phe Asn Gln Asn Pro Ser Arg Val Ala Arg Met Leu Ser Lys Ser Tyr  
 115 120 125  
 Leu Val Ala Ala Ile Ser Ala Ile Ile Thr Ala Thr Val Ala Gly Leu  
 130 135 140  
 Phe Ser Thr Gly Arg Asn Leu Met Tyr Leu Gly Trp Phe Pro Tyr Asp  
 145 150 155 160  
 Phe Gln Ala Thr Ala Ala Ile Tyr Trp Ile Ser Phe Ser Tyr Gln Ala  
 165 170 175  
 Ile Gly Ser Ser Leu Leu Ile Leu Glu Asn Leu Ala Asn Asp Ser Tyr  
 180 185 190  
 Pro Pro Ile Thr Phe Cys Val Val Ser Gly His Val Arg Leu Leu Ile  
 195 200 205  
 Met Arg Leu Ser Arg Ile Gly His Asp Val Lys Leu Ser Ser Ser Glu  
 210 215 220  
 Asn Thr Arg Lys Leu Ile Glu Gly Ile Gln Asp His Arg Lys Leu Met  
 225 230 235 240  
 Lys Ile Ile Arg Leu Leu Arg Ser Thr Leu His Leu Ser Gln Leu Gly  
 245 250 255  
 Gln Phe Leu Ser Ser Gly Ile Asn Ile Ser Ile Thr Leu Ile Asn Ile  
 260 265 270  
 Leu Phe Phe Ala Glu Asn Asn Phe Ala Met Leu Tyr Tyr Ala Val Phe  
 275 280 285  
 Phe Ala Ala Met Leu Ile Glu Leu Phe Pro Ser Cys Tyr Tyr Gly Ile  
 290 295 300  
 Leu Met Thr Met Glu Phe Asp Lys Leu Pro Tyr Ala Ile Phe Ser Ser  
 305 310 315 320

Asn Trp Leu Lys Met Asp Lys Arg Tyr Asn Arg Ser Leu Ile Ile Leu  
 325 330 335

Met Gln Leu Thr Leu Val Pro Val Asn Ile Lys Ala Gly Gly Ile Val  
 340 345 350

Gly Ile Asp Met Ser Ala Phe Phe Ala Thr Val Arg Met Ala Tyr Ser  
 355 360 365

Phe Tyr Thr Leu Ala Leu Ser Phe Arg Val  
 370 375

<210> 19

<211> 1191

<212> DNA

<213> DROSOPHILA MELANOGASTER DOR46

<400> 19

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attgtgtcga atcttctcgt gacctgtgc taccctgttc acctgggaat atccctcttt	180
cgcaaccgca ccatcaccga ggacatcctc aacctgacca cctttgcgac ctgcacagcc	240
tgttcggtga agtgccctgt ctacgcctac aacatcaagg atgtgctgga gatggagcgg	300
ctgttgaggc ttttgatga acgcgtcgtg ggtccggagc aacgcagcat ctacggacaa	360
gtgaggggtcc agctgcgaaa tgtgtctatac gtgttcatcg gcctctacat gccgtgtgcc	420
ctgttcgccc agctatcctt tctgttcaag gaggagcgcg gtctgatgta tcccgcctgg	480
tttcccttcg actgggtgca ctccaccagg aactattaca tagcgaacgc ctatcagata	540
gtgggcatct cgtttcagct gctgcaaaac tatgttagcg actgctttcc ggcgggtggtg	600
ctgtgcctga tctcatccca catcaaaatg ttgtacaaca gattcgagga ggtgggcctg	660
gatccagcca gagatgcgga gaaggacctg gaggcctgca tcaccgatca caagcatatt	720
ctagagtggg caggcggctc attgggttcgt gttctattca ctttccaact tttttccaga	780
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gccttgaatg tgtgcatcgg ttttagcagcc ctggtgtttt tcgtcagcga gcccatggca	900
cggatgtact tcatcttcta ctccctggcc atgccgtgc agatctttcc gtctgtcttt	960
ttcggcaccg acaacgagta ctggttcgga cgcctccact acgcggcctt cagttgcaat	1020
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aagaagagca ccgctgtggc tggcggaatg atgcgtatcc acctggacac gttcttttcc	1140

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1191

<210> 20

<211> 379

<212> PRT

<213> DROSOPHILA MELANOGASTER DOR46

<400> 20

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Thr	Ala	Trp	Arg	Tyr	Leu	Gly	Val	Ala	His	Phe	Arg	Val	Glu	Asn	Trp	20	25	30	
Lys	Asn	Leu	Tyr	Val	Phe	Tyr	Ser	Ile	Val	Ser	Asn	Leu	Leu	Val	Thr	35	40	45	
Leu	Cys	Tyr	Pro	Val	His	Leu	Gly	Ile	Ser	Leu	Phe	Arg	Asn	Arg	Thr	50	55	60	
Ile	Thr	Glu	Asp	Ile	Leu	Asn	Leu	Thr	Thr	Phe	Ala	Thr	Cys	Thr	Ala	65	70	75	80
Cys	Ser	Val	Lys	Cys	Leu	Leu	Tyr	Ala	Tyr	Asn	Ile	Lys	Asp	Val	Leu	85	90	95	
Glu	Met	Glu	Arg	Leu	Leu	Arg	Leu	Leu	Asp	Glu	Arg	Val	Val	Gly	Pro	100	105	110	
Glu	Gln	Arg	Ser	Ile	Tyr	Gly	Gln	Val	Arg	Val	Gln	Leu	Arg	Asn	Val	115	120	125	
Leu	Tyr	Val	Phe	Ile	Gly	Ile	Tyr	Met	Pro	Cys	Ala	Leu	Phe	Ala	Glu	130	135	140	
Leu	Ser	Phe	Leu	Phe	Lys	Glu	Glu	Arg	Gly	Leu	Met	Tyr	Pro	Ala	Trp	145	150	155	160
Phe	Pro	Phe	Asp	Trp	Leu	His	Ser	Thr	Arg	Asn	Tyr	Tyr	Ile	Ala	Asn	165	170	175	
Ala	Tyr	Gln	Ile	Val	Gly	Ile	Ser	Phe	Gln	Leu	Leu	Gln	Asn	Tyr	Val	180	185	190	
Ser	Asp	Cys	Phe	Pro	Ala	Val	Val	Leu	Cys	Leu	Ile	Ser	Ser	His	Ile	195	200	205	
Lys	Met	Leu	Tyr	Asn	Arg	Phe	Glu	Glu	Val	Gly	Leu	Asp	Pro	Ala	Arg	210	215	220	
Asp	Ala	Glu	Lys	Asp	Leu	Glu	Ala	Cys	Ile	Thr	Asp	His	Lys	His	Ile	225	230	235	240





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ccccaggata atgagaaaat cgcaatggaa ctgcgtgagt gtgccgccta ctacaacagg      720
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atgtgttctg ttctgggtgct ggtgtccaac ctgtacgaca tgtccaccat gtccattgca      840
aacggcgatg ccatctttat gctcaagacc tgtatctatc agctgggtgat gctctggcag      900
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agcatctaca gctcccaatg gacgggatgg aacagggcaa accgccggat tgtccttctc     1020
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ggttatgctc ttctcctttc agatcgtcaa ctgctcctac agctacttcg cactgctgaa     1200
gcgcgtcaac agttaaatTTT cgaaacaccg cagcacctaa agattttcaa gccgattttt     1260
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<210> 22
<211> 430
<212> PRT
<213> DROSOPHILA MELANOGASTER DOR19g

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<400> 22

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Leu Gly Val Trp Gln Leu Pro Thr Trp Ala Ala Asp His Gln Arg Arg
20              25              30

Phe Gln Ser Met Arg Phe Gly Phe Ile Leu Val Ile Leu Phe Ile Met
35              40              45

Leu Leu Leu Phe Ser Phe Glu Met Leu Asn Asn Ile Ser Gln Val Arg
50              55              60

Glu Ile Leu Lys Val Phe Phe Met Phe Ala Thr Glu Ile Ser Cys Met
65              70              75              80

Ala Lys Leu Leu His Leu Lys Leu Lys Ser Arg Lys Leu Ala Gly Leu
85              90              95

Val Asp Ala Met Leu Ser Pro Glu Phe Gly Val Lys Ser Glu Gln Glu
100             105             110

Met Gln Met Leu Glu Leu Asp Arg Val Ala Val Val Arg Met Arg Asn
115             120             125

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Ser Tyr Gly Ile Met Ser Leu Gly Ala Ala Ser Leu Ile Leu Ile Val  
 130 135 140  
 Pro Cys Phe Asp Asn Phe Gly Glu Leu Pro Leu Ala Met Leu Glu Val  
 145 150 155 160  
 Cys Ser Ile Glu Gly Trp Ile Cys Tyr Trp Ser Gln Tyr Leu Phe His  
 165 170 175  
 Ser Ile Cys Leu Leu Pro Thr Cys Val Leu Asn Ile Thr Tyr Asp Ser  
 180 185 190  
 Val Ala Tyr Ser Leu Leu Cys Phe Leu Lys Val Gln Leu Gln Met Leu  
 195 200 205  
 Val Leu Arg Leu Glu Lys Leu Gly Pro Val Ile Glu Pro Gln Asp Asn  
 210 215 220  
 Glu Lys Ile Ala Met Glu Leu Arg Glu Cys Ala Ala Tyr Tyr Asn Arg  
 225 230 235 240  
 Ile Val Arg Phe Lys Asp Leu Val Glu Leu Phe Ile Lys Gly Pro Gly  
 245 250 255  
 Ser Val Gln Leu Met Cys Ser Val Leu Val Leu Val Ser Asn Leu Tyr  
 260 265 270  
 Asp Met Ser Thr Met Ser Ile Ala Asn Gly Asp Ala Ile Phe Met Leu  
 275 280 285  
 Lys Thr Cys Ile Tyr Gln Leu Val Met Leu Trp Gln Ile Phe Ile Ile  
 290 295 300  
 Cys Tyr Ala Ser Asn Glu Val Thr Val Gln Ser Ser Arg Leu Cys His  
 305 310 315 320  
 Ser Ile Tyr Ser Ser Gln Trp Thr Gly Trp Asn Arg Ala Asn Arg Arg  
 325 330 335  
 Ile Val Leu Leu Met Met Gln Arg Phe Asn Ser Pro Met Leu Leu Ser  
 340 345 350  
 Thr Phe Asn Pro Thr Phe Ala Phe Ser Leu Glu Ala Phe Gly Ser Val  
 355 360 365  
 Gly Gln Gln Lys Phe Leu Tyr Ile Ser Phe Ile Thr Gly Tyr Ala Leu  
 370 375 380  
 Leu Leu Ser Asp Arg Gln Leu Leu Leu Gln Leu Leu Arg Thr Ala Glu  
 385 390 395 400  
 Ala Arg Gln Gln Leu Asn Phe Glu Thr Pro Gln His Leu Lys Ile Phe  
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 Lys Pro Ile Phe Lys Ser Thr Gln Asn Val Met His Val His

420

425

430

&lt;210&gt; 23

&lt;211&gt; 1391

&lt;212&gt; DNA

&lt;213&gt; DROSOPHILA MELANOGASTER DOR24

&lt;400&gt; 23

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aatgtgttta gcatagctgc catttttccc tttatcctgg cagctgtgct ccataattgg      180
aagaatgtat tgctgctggc cgatgccatg gtggccctac taataaccat tctgggccta      240
ttcaagttta gcatgatact ttacttacgt cgcgatttca agcgactgat tgacaaattt      300
cgtttgctca tgtcgaatga ggcggaacag ggcgaggaat acgccgagat tctcaacgca      360
gcaaacaagc aggatcaacg aatgtgcact ctgttttagga cttgttttct cctcgcctgg      420
gccttgaata gtgttctgcc cctcgtgaga atgggtctca gctattgggt agcagggtcat      480
gcagagcccg agttgccttt tccctgtctt tttccctgga atatccacat cattcgcaat      540
tatgttttga gcttcatctg gagecgtttc gcctcgacag gtgtgggttt acctgctgtc      600
agcttgata ccatattctg ttcttccacc agcaacctgt gcgccttctt caaaattgcg      660
cagtacaagg tggtagatt taaggcgga tcccttaaag aatcacaggc cacattgaac      720
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caaccgatta tctgcgcca gttcttcatt tcctctctgc aactctgcat gctgggatat      840
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atcattatac aagcctatat ctactgtctac tgcggggaga acctgaagac ggagagtgcc      960
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aaaaaaaaaa a                                                                1391

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<210> 24  
 <211> 385  
 <212> PRT  
 <213> DROSOPHILA MELANOGASTER DOR24

<400> 24

Met	Asp	Ser	Phe	Leu	Gln	Val	Gln	Lys	Ser	Thr	Ile	Ala	Leu	Leu	Gly
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Phe	Asp	Leu	Phe	Ser	Glu	Asn	Arg	Glu	Met	Trp	Lys	Arg	Pro	Tyr	Arg
			20					25					30		
Ala	Met	Asn	Val	Phe	Ser	Ile	Ala	Ala	Ile	Phe	Pro	Phe	Ile	Leu	Ala
		35					40					45			
Ala	Val	Leu	His	Asn	Trp	Lys	Asn	Val	Leu	Leu	Leu	Ala	Asp	Ala	Met
	50					55					60				
Val	Ala	Leu	Leu	Ile	Thr	Ile	Leu	Gly	Leu	Phe	Lys	Phe	Ser	Met	Ile
65					70					75					80
Leu	Tyr	Leu	Arg	Arg	Asp	Phe	Lys	Arg	Leu	Ile	Asp	Lys	Phe	Arg	Leu
			85						90					95	
Leu	Met	Ser	Asn	Glu	Ala	Glu	Gln	Gly	Glu	Glu	Tyr	Ala	Glu	Ile	Leu
			100					105					110		
Asn	Ala	Ala	Asn	Lys	Gln	Asp	Gln	Arg	Met	Cys	Thr	Leu	Phe	Arg	Thr
		115					120					125			
Cys	Phe	Leu	Leu	Ala	Trp	Ala	Leu	Asn	Ser	Val	Leu	Pro	Leu	Val	Arg
	130					135					140				
Met	Gly	Leu	Ser	Tyr	Trp	Leu	Ala	Gly	His	Ala	Glu	Pro	Glu	Leu	Pro
145					150					155					160
Phe	Pro	Cys	Leu	Phe	Pro	Trp	Asn	Ile	His	Ile	Ile	Arg	Asn	Tyr	Val
			165						170					175	
Leu	Ser	Phe	Ile	Trp	Ser	Ala	Phe	Ala	Ser	Thr	Gly	Val	Val	Leu	Pro
			180					185					190		
Ala	Val	Ser	Leu	Asp	Thr	Ile	Phe	Cys	Ser	Phe	Thr	Ser	Asn	Leu	Cys
		195					200					205			
Ala	Phe	Phe	Lys	Ile	Ala	Gln	Tyr	Lys	Val	Val	Arg	Phe	Lys	Gly	Gly
	210					215					220				
Ser	Leu	Lys	Glu	Ser	Gln	Ala	Thr	Leu	Asn	Lys	Val	Phe	Ala	Leu	Tyr
225					230					235					240
Gln	Thr	Ser	Leu	Asp	Met	Cys	Asn	Asp	Leu	Asn	Gln	Cys	Tyr	Gln	Pro

245	250	255
Ile Ile Cys Ala Gln Phe Phe Ile Ser Ser Leu Gln Leu Cys Met Leu		
260	265	270
Gly Tyr Leu Phe Ser Ile Thr Phe Ala Gln Thr Glu Gly Val Tyr Tyr		
275	280	285
Ala Ser Phe Ile Ala Thr Ile Ile Ile Gln Ala Tyr Ile Tyr Cys Tyr		
290	295	300
Cys Gly Glu Asn Leu Lys Thr Glu Ser Ala Ser Phe Glu Trp Ala Ile		
305	310	315
Tyr Asp Ser Pro Trp His Glu Ser Leu Gly Ala Gly Gly Ala Ser Thr		
325	330	335
Ser Ile Cys Arg Ser Leu Leu Ile Ser Met Met Arg Ala His Arg Gly		
340	345	350
Phe Arg Ile Thr Gly Tyr Phe Phe Glu Ala Asn Met Glu Ala Phe Ser		
355	360	365
Ser Ile Val Arg Thr Ala Met Ser Tyr Ile Thr Met Leu Arg Ser Phe		
370	375	380
Ser		
385		

<210> 25  
 <211> 900  
 <212> DNA  
 <213> Drosophila Melanogaster DOR10

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tacttcgttt tgtgcacgat cagcaacttt tacgaggctt ccatggtgac gacaaggata	180
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195	200	205
Arg His Gln Leu Met Ile	Arg Leu Gln Lys Asp Val	Asn Tyr Val Phe
210	215	220
Gly Leu Leu Leu Ala Ser	Asn Leu Phe Thr Thr	Ser Cys Leu Leu Cys
225	230	235 240
Cys Met Ala Tyr Tyr Thr	Val Val Glu Gly Phe	Asn Trp Glu Gly Ile
245	250	255
Ser Tyr Met Met Leu Phe	Ala Ser Val Ala Ala	Gln Phe Tyr Val Val
260	265	270
Ser Ser His Gly Gln Met	Leu Ile Asp Leu Leu	Met Thr Ile Thr Tyr
275	280	285
Arg Phe Phe Ala Val Ile	Arg Gln Thr Val Glu	Lys
290	295	300

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 <213> Drosophila Melanogaster DOR105

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acccaaatcg tctacatgat gagtaccaat gaaggactaa ccgggataat tcgtaactca	180
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gacagatatt tggctttgat ccaaaaacta actgaggcct attacgattt actgaatctg	300
aacgattcgt atatatcgga aatattggac cagggtgaaca aggtgggaaa gttgatggct	360
aggggcaatc tgttcttttg catgctcaca tccatgggat tcggtctgta cccattgtcc	420
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ccgtactatg agatgtggta catctttcag atgctcatca cccgatggg ctggtgcatg	540
tacattccgt acaccagtct gattgtgggc ttgataatgt tcggcattgt gaggtgcaag	600
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gcgctgctct gtgcgctgct ctttatgctg attatcgtea gcggcaccag tcagctgata	840
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<210> 28  
<211> 375  
<212> PRT  
<213> Drosophila Melanogaster DOR105

<400> 28

Met	Phe	Glu	Asp	Ile	Gln	Leu	Ile	Tyr	Met	Asn	Ile	Lys	Ile	Leu	Arg	1	5	10	15
Phe	Trp	Ala	Leu	Leu	Tyr	Asp	Lys	Asn	Leu	Arg	Arg	Tyr	Val	Cys	Ile	20	25	30	
Gly	Leu	Ala	Ser	Phe	His	Ile	Phe	Thr	Gln	Ile	Val	Tyr	Met	Met	Ser	35	40	45	
Thr	Asn	Glu	Gly	Leu	Thr	Gly	Ile	Ile	Arg	Asn	Ser	Tyr	Met	Leu	Val	50	55	60	
Leu	Trp	Ile	Asn	Thr	Val	Leu	Arg	Ala	Tyr	Leu	Leu	Leu	Ala	Asp	His	65	70	75	80
Asp	Arg	Tyr	Leu	Ala	Leu	Ile	Gln	Lys	Leu	Thr	Glu	Ala	Tyr	Tyr	Asp	85	90	95	
Leu	Leu	Asn	Leu	Asn	Asp	Ser	Tyr	Ile	Ser	Glu	Ile	Leu	Asp	Gln	Val	100	105	110	
Asn	Lys	Val	Gly	Lys	Leu	Met	Ala	Arg	Gly	Asn	Leu	Phe	Phe	Gly	Met	115	120	125	
Leu	Thr	Ser	Met	Gly	Phe	Gly	Leu	Tyr	Pro	Leu	Ser	Ser	Ser	Glu	Arg	130	135	140	
Val	Leu	Pro	Phe	Gly	Ser	Lys	Ile	Pro	Gly	Leu	Asn	Glu	Tyr	Glu	Ser	145	150	155	160
Pro	Tyr	Tyr	Glu	Met	Trp	Tyr	Ile	Phe	Gln	Met	Leu	Ile	Thr	Pro	Met	165	170	175	
Gly	Cys	Cys	Met	Tyr	Ile	Pro	Tyr	Thr	Ser	Leu	Ile	Val	Gly	Leu	Ile	180	185	190	
Met	Phe	Gly	Ile	Val	Arg	Cys	Lys	Ala	Leu	Gln	His	Arg	Leu	Arg	Gln	195	200	205	

Val Ala Leu Lys His Pro Tyr Gly Asp Arg Asp Pro Arg Glu Leu Arg  
 210 215 220  
 Glu Glu Ile Ile Ala Cys Ile Arg Tyr Gln Gln Ser Ile Ile Glu Tyr  
 225 230 235 240  
 Met Asp His Ile Asn Glu Leu Thr Thr Met Met Phe Leu Phe Glu Leu  
 245 250 255  
 Met Ala Phe Ser Ala Leu Leu Cys Ala Leu Leu Phe Met Leu Ile Ile  
 260 265 270  
 Val Ser Gly Thr Ser Gln Leu Ile Ile Val Cys Met Tyr Ile Asn Met  
 275 280 285  
 Ile Leu Ala Gln Ile Leu Ala Leu Tyr Trp Tyr Ala Asn Glu Leu Arg  
 290 295 300  
 Glu Gln Asn Leu Ala Val Ala Thr Ala Ala Tyr Glu Thr Glu Trp Phe  
 305 310 315 320  
 Thr Phe Asp Val Pro Leu Arg Lys Asn Ile Leu Phe Met Met Met Arg  
 325 330 335  
 Ala Gln Arg Pro Ala Ala Ile Leu Leu Gly Asn Ile Arg Pro Ile Thr  
 340 345 350  
 Leu Glu Leu Phe Gln Asn Leu Leu Asn Thr Thr Tyr Thr Phe Phe Thr  
 355 360 365  
 Val Leu Lys Arg Val Tyr Gly  
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<210> 29

<211> 1188

<212> DNA

<213> Drosophila Melanogaster DOR107

<400> 29

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gatctaattg accgcatccg cttgctcatc ggggagcagg agaagaggga ggactcccgg	360
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 aacatcatcc gttacgtggg gtacaccttc acggtttctc cggccatctt cctctattgc 960  
 tacggaggca cagaaatgtc aactgagagc ctttccttgg gagaagcagc ctacagcagt 1020  
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<210> 30  
 <211> 396  
 <212> PRT  
 <213> Drosophila Melanogaster DOR107

<400> 30

Met	Tyr	Pro	Arg	Phe	Leu	Ser	Arg	Asn	Tyr	Pro	Leu	Ala	Lys	His	Leu	1	5	10	15
Phe	Phe	Val	Thr	Arg	Tyr	Ser	Phe	Gly	Leu	Leu	Gly	Leu	Arg	Phe	Gly	20	25	30	
Lys	Glu	Gln	Ser	Trp	Leu	His	Leu	Leu	Trp	Leu	Val	Phe	Asn	Phe	Val	35	40	45	
Asn	Leu	Ala	His	Cys	Cys	Gln	Ala	Glu	Phe	Val	Phe	Gly	Trp	Ser	His	50	55	60	
Leu	Arg	Thr	Ser	Pro	Val	Asp	Ala	Met	Asp	Ala	Phe	Cys	Pro	Leu	Ala	65	70	75	80
Cys	Ser	Phe	Thr	Thr	Leu	Phe	Lys	Leu	Gly	Trp	Met	Trp	Trp	Arg	Arg	85	90	95	
Gln	Glu	Val	Ala	Asp	Leu	Met	Asp	Arg	Ile	Arg	Leu	Leu	Ile	Gly	Glu	100	105	110	
Gln	Glu	Lys	Arg	Glu	Asp	Ser	Arg	Arg	Lys	Val	Ala	Gln	Arg	Ser	Tyr				

115					120					125					
Tyr	Leu	Met	Val	Thr	Arg	Cys	Gly	Met	Leu	Val	Phe	Thr	Leu	Gly	Ser
	130					135					140				
Ile	Thr	Thr	Gly	Ala	Phe	Val	Leu	Arg	Ser	Leu	Trp	Glu	Met	Trp	Val
145					150					155					160
Arg	Arg	His	Gln	Glu	Phe	Lys	Phe	Asp	Met	Pro	Phe	Arg	Met	Leu	Phe
				165					170					175	
His	Asp	Phe	Ala	His	Arg	Met	Pro	Trp	Phe	Pro	Val	Phe	Tyr	Leu	Tyr
			180					185					190		
Ser	Thr	Trp	Ser	Gly	Gln	Val	Thr	Val	Tyr	Ala	Phe	Ala	Gly	Thr	Asp
		195					200					205			
Gly	Phe	Phe	Phe	Gly	Phe	Thr	Leu	Tyr	Met	Ala	Phe	Leu	Leu	Gln	Ala
	210					215					220				
Leu	Arg	Tyr	Asp	Ile	Gln	Asp	Ala	Leu	Lys	Pro	Ile	Arg	Asp	Pro	Ser
225					230					235					240
Leu	Arg	Glu	Ser	Lys	Ile	Cys	Cys	Gln	Arg	Leu	Ala	Asp	Ile	Val	Asp
				245					250					255	
Arg	His	Asn	Glu	Ile	Glu	Lys	Ile	Val	Lys	Glu	Phe	Ser	Gly	Ile	Met
			260					265					270		
Ala	Ala	Pro	Thr	Phe	Val	His	Phe	Val	Ser	Ala	Ser	Leu	Val	Ile	Ala
		275					280					285			
Thr	Ser	Val	Ile	Asp	Ile	Leu	Leu	Tyr	Ser	Gly	Tyr	Asn	Ile	Ile	Arg
	290					295					300				
Tyr	Val	Val	Tyr	Thr	Phe	Thr	Val	Ser	Ser	Ala	Ile	Phe	Leu	Tyr	Cys
305					310					315					320
Tyr	Gly	Gly	Thr	Glu	Met	Ser	Thr	Glu	Ser	Leu	Ser	Leu	Gly	Glu	Ala
				325					330					335	
Ala	Tyr	Ser	Ser	Ala	Trp	Tyr	Thr	Trp	Asp	Arg	Glu	Thr	Arg	Arg	Arg
			340					345					350		
Val	Phe	Leu	Ile	Ile	Leu	Arg	Ala	Gln	Arg	Pro	Ile	Thr	Val	Arg	Val
		355					360					365			
Pro	Phe	Phe	Ala	Pro	Ser	Leu	Pro	Val	Phe	Thr	Ser	Val	Ile	Lys	Phe
	370					375					380				
Thr	Gly	Ser	Ile	Val	Ala	Leu	Ala	Lys	Thr	Ile	Leu				
385					390					395					

<210> 31  
 <211> 1161

<212> DNA  
 <213> Drosophila Melanogaster DOR108

<400> 31  
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 aagcgcaact atcgcttcct gctccatctg cccattacct tcacctttat tggactcatg 180  
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 ctgccctttg cctactacgt gcccttcgaa tggcagaacg agagaaggta ctggttcgcc 540  
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 ctgggttgct atttcctgtt ccataatctt cttttgtacc gactgcttgg tctgcgattg 660  
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 cagctgacca acgaggttta ccataccaat tggctggaat gtcggccacc gattcgaaag 1020  
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<210> 32  
 <211> 387  
 <212> PRT  
 <213> Drosophila Melanogaster DOR108

<400> 32

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			20					25					30				
Glu	Trp	Thr	Phe	Thr	Gly	Phe	Val	Lys	Arg	Asn	Tyr	Arg	Phe	Leu	Leu		
		35					40					45					
His	Leu	Pro	Ile	Thr	Phe	Thr	Phe	Ile	Gly	Leu	Met	Trp	Leu	Glu	Ala		
	50					55					60						
Phe	Ile	Ser	Ser	Asn	Leu	Glu	Gln	Ala	Gly	Gln	Val	Leu	Tyr	Met	Ser		
65				70					75						80		
Ile	Thr	Glu	Met	Ala	Leu	Val	Val	Lys	Ile	Leu	Ser	Ile	Trp	His	Tyr		
				85					90					95			
Arg	Thr	Glu	Ala	Trp	Arg	Leu	Met	Tyr	Glu	Leu	Gln	His	Ala	Pro	Asp		
			100					105					110				
Tyr	Gln	Leu	His	Asn	Gln	Glu	Glu	Val	Asp	Phe	Trp	Arg	Arg	Glu	Gln		
	115					120						125					
Arg	Phe	Phe	Lys	Trp	Phe	Phe	Tyr	Ile	Tyr	Ile	Leu	Ile	Ser	Leu	Gly		
	130					135					140						
Val	Val	Tyr	Ser	Gly	Cys	Thr	Gly	Val	Leu	Phe	Leu	Glu	Gly	Tyr	Glu		
145					150					155					160		
Leu	Pro	Phe	Ala	Tyr	Tyr	Val	Pro	Phe	Glu	Trp	Gln	Asn	Glu	Arg	Arg		
			165						170					175			
Tyr	Trp	Phe	Ala	Tyr	Gly	Tyr	Asp	Met	Ala	Gly	Met	Thr	Leu	Thr	Cys		
		180						185					190				
Ile	Ser	Asn	Ile	Thr	Leu	Asp	Thr	Leu	Gly	Cys	Tyr	Phe	Leu	Phe	His		
	195						200					205					
Ile	Ser	Leu	Leu	Tyr	Arg	Leu	Leu	Gly	Leu	Arg	Leu	Arg	Glu	Thr	Lys		
	210					215					220						
Asn	Met	Lys	Asn	Asp	Thr	Ile	Phe	Gly	Gln	Gln	Leu	Arg	Ala	Ile	Phe		
225				230						235					240		
Ile	Met	His	Gln	Arg	Ile	Arg	Ser	Leu	Thr	Leu	Thr	Cys	Gln	Arg	Ile		
			245						250					255			
Val	Ser	Pro	Tyr	Ile	Leu	Ser	Gln	Ile	Ile	Leu	Ser	Ala	Leu	Ile	Ile		
			260					265					270				
Cys	Phe	Ser	Gly	Tyr	Arg	Leu	Gln	His	Val	Gly	Ile	Arg	Asp	Asn	Pro		
	275						280					285					
Gly	Gln	Phe	Ile	Ser	Met	Leu	Gln	Phe	Val	Ser	Val	Met	Ile	Leu	Gln		
	290					295					300						
Ile	Tyr	Leu	Pro	Cys	Tyr	Tyr	Gly	Asn	Glu	Ile	Thr	Val	Tyr	Ala	Asn		

305		310		315		320									
Gln	Leu	Thr	Asn	Glu	Val	Tyr	His	Thr	Asn	Trp	Leu	Glu	Cys	Arg	Pro
			325						330					335	
Pro	Ile	Arg	Lys	Leu	Leu	Asn	Ala	Tyr	Met	Glu	His	Leu	Lys	Lys	Pro
			340					345					350		
Val	Thr	Ile	Arg	Ala	Gly	Asn	Ser	Phe	Ala	Val	Gly	Leu	Pro	Ile	Phe
		355					360					365			
Val	Lys	Thr	Ile	Asn	Asn	Ala	Tyr	Ser	Phe	Leu	Ala	Leu	Leu	Leu	Asn
	370					375					380				
Val	Ser	Asn													
385															

<210> 33  
 <211> 1149  
 <212> DNA  
 <213> Drosophila Melanogaster DOR109

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tatccttttg tactgcacct tccactgacc ttcacgtata ttgccttaat gtggtatgaa	180
gctattacat cgtcagattt tgaggaagct ggtcaagttc tgtacatgtc catcaccgaa	240
ctggcattgg tcaactaaact gctgaatatt tggatcgtc gtcatagaagc tgctagtcta	300
atccacgaat tgcaacacga tcccgcattht aatctgcgca attcggagga aatcaaattc	360
tggcagcaaa atcagaggaa ctttaagaga atattttact ggtacatctg gggcagcctt	420
ttcgtggctg taatgggtta tataagcgtg tttttccagg aggattacga gctgcccttt	480
ggctactacg tgccattcga gtggcgacc agggaacgat acttctacgc ttggggctat	540
aatgtggtgg ccatgaccct gtgctgtcta tccaacatcc tactggacac actaggctgt	600
tatttcatgt tccacatcgc ctgccttttc aggccttttg gaatgcgact ggaggccttg	660
aaaaatgcag ccgaagagaa agccagaccg gagttgcgcc gcattttcca actgcacact	720
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aagcagcgac ctggactctt cgtgaccacc gtgcaattcg tggccgtcat gatcgtccag	900
atcttcttgc cctgttacta cggcaatgag ttgaccttc atgccaatgc actcactaat	960

agtgtcttcg gtaccaattg gctggagtag tccgtgggca ctcgcaagct gcttaactgc 1020  
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<210> 34  
 <211> 383  
 <212> PRT  
 <213> Drosophila Melanogaster DOR109

<400> 34

Met	Glu	Ser	Thr	Asn	Arg	Leu	Ser	Ala	Ile	Gln	Thr	Leu	Leu	Val	Ile	1	5	10	15
Gln	Arg	Trp	Ile	Gly	Leu	Leu	Lys	Trp	Glu	Asn	Glu	Gly	Glu	Asp	Gly	20	25	30	
Val	Leu	Thr	Trp	Leu	Lys	Arg	Ile	Tyr	Pro	Phe	Val	Leu	His	Leu	Pro	35	40	45	
Leu	Thr	Phe	Thr	Tyr	Ile	Ala	Leu	Met	Trp	Tyr	Glu	Ala	Ile	Thr	Ser	50	55	60	
Ser	Asp	Phe	Glu	Glu	Ala	Gly	Gln	Val	Leu	Tyr	Met	Ser	Ile	Thr	Glu	65	70	75	80
Leu	Ala	Leu	Val	Thr	Lys	Leu	Leu	Asn	Ile	Trp	Tyr	Arg	Arg	His	Glu	85	90	95	
Ala	Ala	Ser	Leu	Ile	His	Glu	Leu	Gln	His	Asp	Pro	Ala	Phe	Asn	Leu	100	105	110	
Arg	Asn	Ser	Glu	Glu	Ile	Lys	Phe	Trp	Gln	Gln	Asn	Gln	Arg	Asn	Phe	115	120	125	
Lys	Arg	Ile	Phe	Tyr	Trp	Tyr	Ile	Trp	Gly	Ser	Leu	Phe	Val	Ala	Val	130	135	140	
Met	Gly	Tyr	Ile	Ser	Val	Phe	Phe	Gln	Glu	Asp	Tyr	Glu	Leu	Pro	Phe	145	150	155	160
Gly	Tyr	Tyr	Val	Pro	Phe	Glu	Trp	Arg	Thr	Arg	Glu	Arg	Tyr	Phe	Tyr	165	170	175	
Ala	Trp	Gly	Tyr	Asn	Val	Val	Ala	Met	Thr	Leu	Cys	Cys	Leu	Ser	Asn	180	185	190	
Ile	Leu	Leu	Asp	Thr	Leu	Gly	Cys	Tyr	Phe	Met	Phe	His	Ile	Ala	Ser	195	200	205	



Leu Phe Arg Leu Leu Gly Met Arg Leu Glu Ala Leu Lys Asn Ala Ala  
 210 215 220  
 Glu Glu Lys Ala Arg Pro Glu Leu Arg Arg Ile Phe Gln Leu His Thr  
 225 230 235 240  
 Lys Val Arg Arg Leu Thr Arg Glu Cys Glu Val Leu Val Ser Pro Tyr  
 245 250 255  
 Val Leu Ser Gln Val Val Phe Ser Ala Phe Ile Ile Cys Phe Ser Ala  
 260 265 270  
 Tyr Arg Leu Val His Met Gly Phe Lys Gln Arg Pro Gly Leu Phe Val  
 275 280 285  
 Thr Thr Val Gln Phe Val Ala Val Met Ile Val Gln Ile Phe Leu Pro  
 290 295 300  
 Cys Tyr Tyr Gly Asn Glu Leu Thr Phe His Ala Asn Ala Leu Thr Asn  
 305 310 315 320  
 Ser Val Phe Gly Thr Asn Trp Leu Glu Tyr Ser Val Gly Thr Arg Lys  
 325 330 335  
 Leu Leu Asn Cys Tyr Met Glu Phe Leu Lys Arg Pro Val Lys Val Arg  
 340 345 350  
 Ala Gly Val Phe Phe Glu Ile Gly Leu Pro Ile Phe Val Lys Thr Ile  
 355 360 365  
 Asn Asn Ala Tyr Ser Phe Phe Ala Leu Leu Leu Lys Ile Ser Lys  
 370 375 380

<210> 35

<211> 1161

<212> DNA

<213> Drosophila Melanogaster DOR110

<400> 35

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ataatctact atataacatc ctgtttgatt tttgcttggt gtgccgtata cttgccaatc	180
ggaatcatca ttagtttcaa aacggatatt aacacattca caccgaatga actgttgaca	240
gttatgcaat tattttttcaa ttcagtggga atgccattca aggttctggt cttcaatttg	300
tatattttctg gatttttacaa ggccaaaaag ctccttagcg aaatggacaa acgttgcacc	360
actttgaagg agcgagtgga agtgcaccaa ggtgtggtcc gttgcaacaa ggctacctc	420
atttaccagt tcattttatac cgcgtacact atttcaacat ttctatcggc ggctcttagt	480

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ggaaaattgc catggcgcat ctataatcct tttgtggatt ttcgagaaag tagatccagt      540
ttttggaaag ctgccctcaa cgagacagca cttatgctat ttgctgtgac tcaaacccta      600
atgagtgata tatatccact gctttatggg ttgacctga gagttcacct caaacttttg      660
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gatttgatta actatgctgc agcaatacga ccagcgggta cccgcacaat tttcgttcaa      780
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ttttgcttcg tttgtgatct actcaaaaag gattgtgaac ttcttgtgtc ggccatattt      960
cattccaact ggattaattc aagccgcagt tacaagtcac ctttgagata ttttctgaag     1020
aacgcccaga aatcaattgc ttttacagcc ggctctatct ttcccatttc tactggctcg     1080
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<210> 36
<211> 387
<212> PRT
<213> Drosophila Melanogaster DOR110

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<400> 36

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              20              25              30
Trp His Thr Pro Ala Thr His Lys Ile Ile Tyr Tyr Ile Thr Ser Cys
              35              40              45
Leu Ile Phe Ala Trp Cys Ala Val Tyr Leu Pro Ile Gly Ile Ile Ile
              50              55              60
Ser Phe Lys Thr Asp Ile Asn Thr Phe Thr Pro Asn Glu Leu Leu Thr
65              70              75              80
Val Met Gln Leu Phe Phe Asn Ser Val Gly Met Pro Phe Lys Val Leu
              85              90              95
Phe Phe Asn Leu Tyr Ile Ser Gly Phe Tyr Lys Ala Lys Lys Leu Leu
              100              105              110
Ser Glu Met Asp Lys Arg Cys Thr Thr Leu Lys Glu Arg Val Glu Val
              115              120              125

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His Gln Gly Val Val Arg Cys Asn Lys Ala Tyr Leu Ile Tyr Gln Phe  
 130 135 140  
 Ile Tyr Thr Ala Tyr Thr Ile Ser Thr Phe Leu Ser Ala Ala Leu Ser  
 145 150 155 160  
 Gly Lys Leu Pro Trp Arg Ile Tyr Asn Pro Phe Val Asp Phe Arg Glu  
 165 170 175  
 Ser Arg Ser Ser Phe Trp Lys Ala Ala Leu Asn Glu Thr Ala Leu Met  
 180 185 190  
 Leu Phe Ala Val Thr Gln Thr Leu Met Ser Asp Ile Tyr Pro Leu Leu  
 195 200 205  
 Tyr Gly Leu Ile Leu Arg Val His Leu Lys Leu Leu Arg Leu Arg Val  
 210 215 220  
 Glu Ser Leu Cys Thr Asp Ser Gly Lys Ser Asp Ala Glu Asn Glu Gln  
 225 230 235 240  
 Asp Leu Ile Asn Tyr Ala Ala Ala Ile Arg Pro Ala Val Thr Arg Thr  
 245 250 255  
 Ile Phe Val Gln Phe Leu Leu Ile Gly Ile Cys Leu Gly Leu Ser Met  
 260 265 270  
 Ile Asn Leu Leu Phe Phe Ala Asp Ile Trp Thr Gly Leu Ala Thr Val  
 275 280 285  
 Ala Tyr Ile Asn Gly Leu Met Val Gln Thr Phe Pro Phe Cys Phe Val  
 290 295 300  
 Cys Asp Leu Leu Lys Lys Asp Cys Glu Leu Leu Val Ser Ala Ile Phe  
 305 310 315 320  
 His Ser Asn Trp Ile Asn Ser Ser Arg Ser Tyr Lys Ser Ser Leu Arg  
 325 330 335  
 Tyr Phe Leu Lys Asn Ala Gln Lys Ser Ile Ala Phe Thr Ala Gly Ser  
 340 345 350  
 Ile Phe Pro Ile Ser Thr Gly Ser Asn Ile Lys Val Ala Lys Leu Ala  
 355 360 365  
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 Thr Lys Asn  
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<210> 37  
 <211> 1050  
 <212> DNA

<213> Drosophila Melanogaster DOR111

<400> 37

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ccgaatgtga taaggcggtta cctgctacgt ttttatctgg tactcggttt tctcaacttc      180
aatgcctatg tgggtgggca aatcgcgtag tttatagtcc atataatgtc gacgactact      240
cttttgaggg ccactgcagt ggcaccgtgc attggcttca gcttcatggc cgactttaag      300
cagttcggtc tcacagtga tagaaagcga ttggtcagat tgctggatga tctcaaggag      360
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agctctcgga ttggccattc ggcatttaat cagaactggg tgccatgcag caccaaatac      900
aaacgcaccc tgcaatttat tategcgcgc agccagaagc ccgcctctat aagaccgcct      960
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<210> 38

<211> 350

<212> PRT

<213> Drosophila Melanogaster DOR111

<400> 38

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Phe Asp Glu Leu Thr Arg Phe Pro Met Thr Phe Tyr Lys Thr Ile Gly
                20              25              30
Glu Asp Leu Tyr Ser Asp Arg Asp Pro Asn Val Ile Arg Arg Tyr Leu
35              40              45
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Ser Tyr Gln Phe Phe Ala Leu Leu Arg Thr Thr Tyr Tyr Gly  
 340 345 350

<210> 39  
 <211> 1236  
 <212> DNA  
 <213> Drosophila Melanogaster DOR114

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 gatcacaagt acagtcaaaa gtggaaggag gtcctgctgc actggacatt cattgcccag 180  
 atggtcaatc tgaatacagt gctcatctcg gaactgattt acgtattcct ggcgatcggc 240  
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 ggtgacttca aaatctggaa catttcgcgg cagagaaaga gactcaccca agtggtcagc 360  
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 tatagctact atttcatgta tatctcacag aatatcggcg gtcaggcttg tctgtccggt 660  
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 cggcttttcg ctacatcga gagtcatggt gcgggcattg gctcattcca gcacgatttg 780  
 gagttcctcc aagcgacggt ggcgtatcac cagagcttga tccacctctg ccaggatatc 840  
 aatgagatat tcggtgtttc actgttgtcc aactttgtat cctcgtcgtt tatcatctgc 900  
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 <211> 412  
 <212> PRT

<213> Drosophila Melanogaster DOR114

<400> 40

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			20					25					30			
Leu	Ser	Ile	Gly	Met	Met	Ala	Tyr	Asp	His	Lys	Tyr	Ser	Gln	Lys	Trp	
		35					40					45				
Lys	Glu	Val	Leu	Leu	His	Trp	Thr	Phe	Ile	Ala	Gln	Met	Val	Asn	Leu	
	50					55					60					
Asn	Thr	Val	Leu	Ile	Ser	Glu	Leu	Ile	Tyr	Val	Phe	Leu	Ala	Ile	Gly	
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Lys	Gly	Ser	Asn	Phe	Leu	Glu	Ala	Thr	Met	Asn	Leu	Ser	Phe	Ile	Gly	
			85						90					95		
Phe	Val	Ile	Val	Gly	Asp	Phe	Lys	Ile	Trp	Asn	Ile	Ser	Arg	Gln	Arg	
			100					105						110		
Lys	Arg	Leu	Thr	Gln	Val	Val	Ser	Arg	Leu	Glu	Glu	Leu	His	Pro	Gln	
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Gly	Leu	Ala	Gln	Gln	Glu	Pro	Tyr	Asn	Ile	Gly	His	His	Leu	Ser	Gly	
	130					135					140					
Tyr	Ser	Arg	Tyr	Ser	Lys	Phe	Tyr	Phe	Gly	Met	His	Met	Val	Leu	Ile	
145					150					155					160	
Trp	Thr	Tyr	Asn	Leu	Tyr	Trp	Ala	Val	Tyr	Tyr	Leu	Val	Cys	Asp	Phe	
			165						170					175		
Trp	Leu	Gly	Met	Arg	Gln	Phe	Glu	Arg	Met	Leu	Pro	Tyr	Tyr	Cys	Trp	
		180						185					190			
Val	Pro	Trp	Asp	Trp	Ser	Thr	Gly	Tyr	Ser	Tyr	Tyr	Phe	Met	Tyr	Ile	
		195					200					205				
Ser	Gln	Asn	Ile	Gly	Gly	Gln	Ala	Cys	Leu	Ser	Gly	Gln	Leu	Ala	Ala	
	210					215					220					
Asp	Met	Leu	Met	Cys	Ala	Leu	Val	Thr	Leu	Val	Val	Met	His	Phe	Ile	
225					230					235					240	
Arg	Leu	Ser	Ala	His	Ile	Glu	Ser	His	Val	Ala	Gly	Ile	Gly	Ser	Phe	
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Gln	His	Asp	Leu	Glu	Phe	Leu	Gln	Ala	Thr	Val	Ala	Tyr	His	Gln	Ser	
		260						265						270		

Leu Ile His Leu Cys Gln Asp Ile Asn Glu Ile Phe Gly Val Ser Leu  
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 Leu Ser Asn Phe Val Ser Ser Ser Phe Ile Ile Cys Phe Val Gly Phe  
 290 295 300  
 Gln Met Thr Ile Gly Ser Lys Ile Asp Asn Leu Val Met Leu Val Leu  
 305 310 315 320  
 Phe Leu Phe Cys Ala Met Val Gln Val Phe Met Ile Ala Thr His Ala  
 325 330 335  
 Gln Arg Leu Val Asp Ala Ser Glu Gln Ile Gly Gln Ala Val Tyr Asn  
 340 345 350  
 His Asp Trp Phe Arg Ala Asp Leu Arg Tyr Arg Lys Met Leu Ile Leu  
 355 360 365  
 Ile Ile Lys Arg Ala Gln Gln Pro Ser Arg Leu Lys Ala Thr Met Phe  
 370 375 380  
 Leu Asn Ile Ser Leu Val Thr Val Ser Asp Leu Leu Gln Leu Ser Tyr  
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 Lys Phe Phe Ala Leu Leu Arg Thr Met Tyr Val Asn  
 405 410

<210> 41  
 <211> 1140  
 <212> DNA  
 <213> Drosophila Melanogaster DOR115

<400> 41  
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 gtgattaacc tcagcttcgt tggattatct gagagcattt acgtttacag tgccttcatt 180  
 gataataagt tcctggaagc agtcaactgc ttgtcctaca ttggcttcgt aaccgtaggc 240  
 atgagcaaga tgttcttcat ccggtggaag aaaacggcta taactgaact gattaatgaa 300  
 ttgaaggaga tctatccgaa tggtttgatc cgagaggaaa gatacaatct gccgatgtat 360  
 ctgggcacct gctccagaat cagccttata tattccttgc tctactctgt tctcatctgg 420  
 acattcaact tgttttgtgt aatggagtat tgggtctatg acaagtggct caacattcga 480  
 gtggtgggca aacagttgcc gtacctcatg tacattcctt ggaaatggca ggataactgg 540  
 tcgtactatc cactgttatt ctcccagaat tttgcaggat acacatctgc agctgggtcaa 600  
 atttcaaccg atgtcttgct ctgcgcggtg gccactcagt tggtaatgca cttcgacttt 660



ctctcaaata gtatggaacg ccacgaattg agtggagatt ggaagaagga ctcccgattt 720  
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atatttggaa ttccactact actcaacttc atgggtatcct cgttcgtcat ctgcttcgtg 840  
ggattccaga tgactgttgg agttccgccg gatatagttg tgaagctctt cctcttcctt 900  
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aaacgagcct tggttattat tatagctaga tcgcagaagg taacttttct aaaggccact 1080  
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<211> 380  
<212> PRT  
<213> Drosophila Melanogaster DOR115

<400> 42

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Ile	Arg	Pro	Tyr	Thr	Asn	Gly	Glu	Glu	Ser	Lys	Met	Asn	Lys	Leu	Ile	20	25	30	
Phe	His	Ile	Val	Phe	Trp	Ser	Asn	Val	Ile	Asn	Leu	Ser	Phe	Val	Gly	35	40	45	
Leu	Phe	Glu	Ser	Ile	Tyr	Val	Tyr	Ser	Ala	Phe	Met	Asp	Asn	Lys	Phe	50	55	60	
Leu	Glu	Ala	Val	Thr	Ala	Leu	Ser	Tyr	Ile	Gly	Phe	Val	Thr	Val	Gly	65	70	75	80
Met	Ser	Lys	Met	Phe	Phe	Ile	Arg	Trp	Lys	Lys	Thr	Ala	Ile	Thr	Glu	85	90	95	
Leu	Ile	Asn	Glu	Leu	Lys	Glu	Ile	Tyr	Pro	Asn	Gly	Leu	Ile	Arg	Glu	100	105	110	
Glu	Arg	Tyr	Asn	Leu	Pro	Met	Tyr	Leu	Gly	Thr	Cys	Ser	Arg	Ile	Ser	115	120	125	
Leu	Ile	Tyr	Ser	Leu	Leu	Tyr	Ser	Val	Leu	Ile	Trp	Thr	Phe	Asn	Leu	130	135	140	
Phe	Cys	Val	Met	Glu	Tyr	Trp	Val	Tyr	Asp	Lys	Trp	Leu	Asn	Ile	Arg	145	150	155	160
Val	Val	Gly	Lys	Gln	Leu	Pro	Tyr	Leu	Met	Tyr	Ile	Pro	Trp	Lys	Trp				

165										170					175				
Gln	Asp	Asn	Trp	Ser	Tyr	Tyr	Pro	Leu	Leu	Phe	Ser	Gln	Asn	Phe	Ala				
				180				185					190						
Gly	Tyr	Thr	Ser	Ala	Ala	Gly	Gln	Ile	Ser	Thr	Asp	Val	Leu	Leu	Cys				
		195					200					205							
Ala	Val	Ala	Thr	Gln	Leu	Val	Met	His	Phe	Asp	Phe	Leu	Ser	Asn	Ser				
	210					215					220								
Met	Glu	Arg	His	Glu	Leu	Ser	Gly	Asp	Trp	Lys	Lys	Asp	Ser	Arg	Phe				
225					230					235					240				
Leu	Val	Asp	Ile	Val	Arg	Tyr	His	Glu	Arg	Ile	Leu	Arg	Leu	Ser	Asp				
			245						250						255				
Ala	Val	Asn	Asp	Ile	Phe	Gly	Ile	Pro	Leu	Leu	Leu	Asn	Phe	Met	Val				
			260					265					270						
Ser	Ser	Phe	Val	Ile	Cys	Phe	Val	Gly	Phe	Gln	Met	Thr	Val	Gly	Val				
		275					280					285							
Pro	Pro	Asp	Ile	Val	Val	Lys	Leu	Phe	Leu	Phe	Leu	Val	Ser	Ser	Met				
	290					295					300								
Ser	Gln	Val	Tyr	Leu	Ile	Cys	His	Tyr	Gly	Gln	Leu	Val	Ala	Asp	Ala				
305					310					315					320				
Ser	Tyr	Gly	Phe	Ser	Val	Ala	Thr	Tyr	Asn	Gln	Lys	Trp	Tyr	Lys	Ala				
			325						330					335					
Asp	Val	Arg	Tyr	Lys	Arg	Ala	Leu	Val	Ile	Ile	Ile	Ala	Arg	Ser	Gln				
			340					345					350						
Lys	Val	Thr	Phe	Leu	Lys	Ala	Thr	Ile	Phe	Leu	Asp	Ile	Thr	Arg	Ser				
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Thr	Met	Thr	Asp	Val	Arg	Asn	Cys	Val	Leu	Ser	Val								
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<210> 43  
 <211> 759  
 <212> DNA  
 <213> Drosophila Melanogaster DOR116

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cagacggtga caatgctcgt gcaaggagtc ggattctact ccggtgattt gttcgtattt	180
ctcggcttaa cgcagatcct aactttcgcc gatatgctgc aggtgaaggt gaaagagcta	240

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aacgatgccc tggaacaaaa agcggaatac agagctctag tccgagttgg agcttctatt      300
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acggactact gtcgcgccat aaatgccctc tactacgaat tgatcgccac tcaggttctt      420
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tcggctatct ttttcgtggt ttctgcctac agcatgtcca tctattgcat tctgggcacc      540
attcttgagt ttgcatatga ccaggtgtac gagagcatct gtaatgtgac ctggtatgag      600
ttgagtggcg aacagcgaaa gctttttggt tttttgttgc gggaatccca gtatccgcac      660
aatattcaga tacttgaggt tatgtcgctt tccgtgagaa cggctctgca gattgttaaa      720
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<211> 253
<212> PRT
<213> Drosophila Melanogaster DOR116

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<400> 44

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20        25        30
Cys Tyr Val Val Thr Tyr Met Ile Gln Thr Val Thr Met Leu Val Gln
35        40        45
Gly Val Gly Phe Tyr Ser Gly Asp Leu Phe Val Phe Leu Gly Leu Thr
50        55        60
Gln Ile Leu Thr Phe Ala Asp Met Leu Gln Val Lys Val Lys Glu Leu
65        70        75        80
Asn Asp Ala Leu Glu Gln Lys Ala Glu Tyr Arg Ala Leu Val Arg Val
85        90        95
Gly Ala Ser Ile Asp Gly Ala Glu Asn Arg Gln Arg Leu Leu Leu Asp
100       105       110
Val Ile Arg Trp His Gln Leu Phe Thr Asp Tyr Cys Arg Ala Ile Asn
115       120       125
Ala Leu Tyr Tyr Glu Leu Ile Ala Thr Gln Val Leu Ser Met Ala Leu
130       135       140
Ala Met Met Leu Ser Phe Cys Ile Asn Leu Ser Ser Phe His Met Pro
145       150       155       160

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Ser Ala Ile Phe Phe Val Val Ser Ala Tyr Ser Met Ser Ile Tyr Cys  
                     165                    170                    175  
 Ile Leu Gly Thr Ile Leu Glu Phe Ala Tyr Asp Gln Val Tyr Glu Ser  
                     180                    185                    190  
 Ile Cys Asn Val Thr Trp Tyr Glu Leu Ser Gly Glu Gln Arg Lys Leu  
                     195                    200                    205  
 Phe Gly Phe Leu Leu Arg Glu Ser Gln Tyr Pro His Asn Ile Gln Ile  
                     210                    215                    220  
 Leu Gly Val Met Ser Leu Ser Val Arg Thr Ala Leu Gln Ile Val Lys  
                     225                    230                    235                    240  
 Leu Ile Tyr Ser Val Ser Met Met Met Met Asn Arg Ala  
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 <211> 1152  
 <212> DNA  
 <213> Drosophila Melanogaster DOR117

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 aaccgtatat tcttcttttt catggcagtc tacatggttt atgccactaa tacgtttctg 480  
 tcggcgatct tcattggaag gccaccgtac caaaattact acccttttct ggactggcga 540  
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<210> 46  
<211> 384  
<212> PRT  
<213> Drosophila Melanogaster DOR117

<400> 46

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Ser	Pro	Val	Arg	Ser	Arg	Asp	Ala	Thr	Leu	Tyr	Leu	Leu	Arg	Cys	Val	20	25	30	
Phe	Leu	Met	Gly	Val	Arg	Lys	Pro	Pro	Ala	Lys	Phe	Phe	Val	Ala	Tyr	35	40	45	
Val	Leu	Trp	Ser	Phe	Ala	Leu	Asn	Phe	Cys	Ser	Thr	Phe	Tyr	Gln	Pro	50	55	60	
Ile	Gly	Phe	Leu	Thr	Gly	Tyr	Ile	Ser	His	Leu	Ser	Glu	Phe	Ser	Pro	65	70	75	80
Gly	Glu	Phe	Leu	Thr	Ser	Leu	Gln	Val	Ala	Phe	Asn	Ala	Trp	Ser	Cys	85	90	95	
Ser	Thr	Lys	Val	Leu	Ile	Val	Trp	Ala	Leu	Val	Lys	Arg	Phe	Asp	Glu	100	105	110	
Ala	Asn	Asn	Leu	Leu	Asp	Glu	Met	Asp	Arg	Arg	Ile	Thr	Asp	Pro	Gly	115	120	125	
Glu	Arg	Leu	Gln	Ile	His	Arg	Ala	Val	Ser	Leu	Ser	Asn	Arg	Ile	Phe	130	135	140	
Phe	Phe	Phe	Met	Ala	Val	Tyr	Met	Val	Tyr	Ala	Thr	Asn	Thr	Phe	Leu	145	150	155	160
Ser	Ala	Ile	Phe	Ile	Gly	Arg	Pro	Pro	Tyr	Gln	Asn	Tyr	Tyr	Pro	Phe	165	170	175	
Leu	Asp	Trp	Arg	Ser	Ser	Thr	Leu	His	Leu	Ala	Leu	Gln	Ala	Gly	Leu	180	185	190	
Glu	Tyr	Phe	Ala	Met	Ala	Gly	Ala	Cys	Phe	Gln	Asp	Val	Cys	Val	Asp				

195	200	205
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Phe Ala Glu Arg Leu Arg Arg Leu Gly Thr Tyr Pro Tyr Glu Ser Gln 225 230 235 240		
Glu Gln Lys Tyr Glu Arg Leu Val Gln Cys Ile Gln Asp His Lys Val 245 250 255		
Ile Leu Arg Phe Val Asp Cys Leu Arg Pro Val Ile Ser Gly Thr Ile 260 265 270		
Phe Val Gln Phe Leu Val Val Gly Leu Val Leu Gly Phe Thr Leu Ile 275 280 285		
Asn Ile Val Leu Phe Ala Asn Leu Gly Ser Ala Ile Ala Ala Leu Ser 290 295 300		
Phe Met Ala Ala Val Leu Leu Glu Thr Thr Pro Phe Cys Ile Leu Cys 305 310 315 320		
Asn Tyr Leu Thr Glu Asp Cys Tyr Lys Leu Ala Asp Ala Leu Phe Gln 325 330 335		
Ser Asn Trp Ile Asp Glu Glu Lys Arg Tyr Gln Lys Thr Leu Met Tyr 340 345 350		
Phe Leu Gln Lys Leu Gln Gln Pro Ile Thr Phe Met Ala Met Asn Val 355 360 365		
Phe Pro Ile Ser Val Gly Thr Asn Ile Ser Val Ser Arg Cys Ala Leu 370 375 380		

<210> 47  
 <211> 1116  
 <212> DNA  
 <213> Drosophila Melanogaster DOR118

<400> 47	
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atcaaggcca agaacatttt ggaccagctg gacctgcgct gcaccgccat ggaggagcgc	300
gaaaagatcc acctagtggg ggcccgcagc aacctgcct ttctcatctt cacctttgtc	360
tactgcggat atgccggctc cacctacctg agctcggttc tcagcgggcg tccgccttgg	420

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 ctgtattttc tccaaaacgt gcagcagcct atcgttttca ttgcaggcgg tatctttcag 1020  
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 aagcaaata ataatgctga caaatttaag acggac 1116

<210> 48  
 <211> 372  
 <212> PRT  
 <213> Drosophila Melanogaster DOR118

<400> 48

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Val	Tyr	Leu	Thr	Trp	Thr	Leu	Met	Thr	Phe	Val	Trp	Cys	Thr	Thr	Tyr	20	25	30	
Leu	Pro	Leu	Gly	Phe	Leu	Gly	Ser	Tyr	Met	Thr	Gln	Ile	Lys	Ser	Phe	35	40	45	
Ser	Pro	Gly	Glu	Phe	Leu	Thr	Ser	Leu	Gln	Val	Cys	Ile	Asn	Ala	Tyr	50	55	60	
Gly	Ser	Ser	Val	Lys	Val	Ala	Ile	Thr	Tyr	Ser	Met	Leu	Trp	Arg	Leu	65	70	75	80
Ile	Lys	Ala	Lys	Asn	Ile	Leu	Asp	Gln	Leu	Asp	Leu	Arg	Cys	Thr	Ala	85	90	95	
Met	Glu	Glu	Arg	Glu	Lys	Ile	His	Leu	Val	Val	Ala	Arg	Ser	Asn	His	100	105	110	
Ala	Phe	Leu	Ile	Phe	Thr	Phe	Val	Tyr	Cys	Gly	Tyr	Ala	Gly	Ser	Thr	115	120	125	

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 130 135 140  
 Pro Phe Ile Asp Trp His Asp Gly Thr Leu Lys Leu Trp Val Ala Ser  
 145 150 155 160  
 Thr Leu Glu Tyr Met Val Met Ser Gly Ala Val Leu Gln Asp Gln Leu  
 165 170 175  
 Ser Asp Ser Tyr Pro Leu Ile Tyr Thr Leu Ile Leu Arg Ala His Leu  
 180 185 190  
 Asp Met Leu Arg Glu Arg Ile Arg Arg Leu Arg Ser Asp Glu Asn Leu  
 195 200 205  
 Ser Glu Ala Glu Ser Tyr Glu Glu Leu Val Lys Cys Val Met Asp His  
 210 215 220  
 Lys Leu Ile Leu Arg Tyr Cys Ala Ile Ile Lys Pro Val Ile Gln Gly  
 225 230 235 240  
 Thr Ile Phe Thr Gln Phe Leu Leu Ile Gly Leu Val Leu Gly Phe Thr  
 245 250 255  
 Leu Ile Asn Val Phe Phe Phe Ser Asp Ile Trp Thr Gly Ile Ala Ser  
 260 265 270  
 Phe Met Phe Val Ile Thr Ile Leu Leu Gln Thr Phe Pro Phe Cys Tyr  
 275 280 285  
 Thr Cys Asn Leu Ile Met Glu Asp Cys Glu Ser Leu Thr His Ala Ile  
 290 295 300  
 Phe Gln Ser Asn Trp Val Asp Ala Ser Arg Arg Tyr Lys Thr Thr Leu  
 305 310 315 320  
 Leu Tyr Phe Leu Gln Asn Val Gln Gln Pro Ile Val Phe Ile Ala Gly  
 325 330 335  
 Gly Ile Phe Gln Ile Ser Met Ser Ser Asn Ile Ser Val Ala Lys Phe  
 340 345 350  
 Ala Phe Ser Val Ile Thr Ile Thr Lys Gln Met Asn Ile Ala Asp Lys  
 355 360 365  
 Phe Lys Thr Asp  
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<210> 49  
 <211> 1194  
 <212> DNA  
 <213> Drosophila Melanogaster DOR119  
 <400> 49



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gtcctgcgct acgtgtatat cttctggacc tgcgtgccct tcgccttcgg ggtgtttttac      180
ctgcccgtgg gcttcatcat cagctacgtg caggagttca agaacttcac gccgggagag      240
ttccttacct cgctgcagggt gtgcatcaat gtgtatggcg cctcgggtgaa gtccaccatc      300
acctacctct tctctggcg actgcgcaag acggagatcc ttctggactc cctggacaag      360
aggctggcga acgacagcga tcgcgagagg atccacaata tgggtggcgcg ctgcaactac      420
gcctttctca tctacagctt catctactgc ggatacgcgg gttccacttt cctgtcctac      480
gccctcagtg gtctgctctc gtgggtcgtc tacaatccct tcatcgattg gcgcgatggc      540
atgggcagcc tgtggatcca ggccatattc gaggatcatca ccatgtcctt cgccgtgctg      600
caggaccagc tatccgacac gtatcccctg atgttcacca ttatgttccg ggcccacatg      660
gaggtcctca aggatcacgt gcggagcctg cgcattggatc ccgagcgcag tgaggcagac      720
aactatcagg atctggtgaa ctgcgtgctg gaccacaaga ctatactgaa atgctgtgac      780
atgattcgcc ccatgatata ccgcaccatc ttcgtgcaat tcgcgctgat tggttccgtt      840
ttgggcctga cctggtgaa cgtgttcttc ttctcgaact tctggaaggg cgtggcctcg      900
ctcctgttcg tcatcaccat cctgctgcag accttcccgt tctgctacac ctgcaacatg      960
ctgatcgacg atgccagga tctgtccaac gagattttcc agtccaactg ggtggacgcg      1020
gagccgcgct acaaggcgac gctggtgctc ttcatgcacc atgttcagca gcccataatc      1080
ttcattgccg gaggcattct tcccatctct atgaacagca acataaccgt ggccaagttc      1140
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<210> 50
<211> 398
<212> PRT
<213> Drosophila Melanogaster DOR119

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<400> 50
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1           5           10          15
Gln Ser Arg Gln Gly Asn Ile Tyr Leu Tyr Arg Ala Met Trp Leu Ile
          20          25          30
Gly Trp Ile Pro Pro Lys Glu Gly Val Leu Arg Tyr Val Tyr Leu Phe

```

35					40					45					
Trp	Thr	Cys	Val	Pro	Phe	Ala	Phe	Gly	Val	Phe	Tyr	Leu	Pro	Val	Gly
50						55					60				
Phe	Ile	Ile	Ser	Tyr	Val	Gln	Glu	Phe	Lys	Asn	Phe	Thr	Pro	Gly	Glu
65					70					75					80
Phe	Leu	Thr	Ser	Leu	Gln	Val	Cys	Ile	Asn	Val	Tyr	Gly	Ala	Ser	Val
				85					90					95	
Lys	Ser	Thr	Ile	Thr	Tyr	Leu	Phe	Leu	Trp	Arg	Leu	Arg	Lys	Thr	Glu
			100					105					110		
Ile	Leu	Leu	Asp	Ser	Leu	Asp	Lys	Arg	Leu	Ala	Asn	Asp	Ser	Asp	Arg
		115					120					125			
Glu	Arg	Ile	His	Asn	Met	Val	Ala	Arg	Cys	Asn	Tyr	Ala	Phe	Leu	Ile
	130					135					140				
Tyr	Ser	Phe	Ile	Tyr	Cys	Gly	Tyr	Ala	Gly	Ser	Thr	Phe	Leu	Ser	Tyr
145					150					155					160
Ala	Leu	Ser	Gly	Arg	Pro	Pro	Trp	Ser	Val	Tyr	Asn	Pro	Phe	Ile	Asp
				165					170					175	
Trp	Arg	Asp	Gly	Met	Gly	Ser	Leu	Trp	Ile	Gln	Ala	Ile	Phe	Glu	Tyr
			180					185					190		
Ile	Thr	Met	Ser	Phe	Ala	Val	Leu	Gln	Asp	Gln	Leu	Ser	Asp	Thr	Tyr
		195					200					205			
Pro	Leu	Met	Phe	Thr	Ile	Met	Phe	Arg	Ala	His	Met	Glu	Val	Leu	Lys
	210					215					220				
Asp	His	Val	Arg	Ser	Leu	Arg	Met	Asp	Pro	Glu	Arg	Ser	Glu	Ala	Asp
225					230					235					240
Asn	Tyr	Gln	Asp	Leu	Val	Asn	Cys	Val	Leu	Asp	His	Lys	Thr	Ile	Leu
				245					250					255	
Lys	Cys	Cys	Asp	Met	Ile	Arg	Pro	Met	Ile	Ser	Arg	Thr	Ile	Phe	Val
			260					265					270		
Gln	Phe	Ala	Leu	Ile	Gly	Ser	Val	Leu	Gly	Leu	Thr	Leu	Val	Asn	Val
		275					280					285			
Phe	Phe	Phe	Ser	Asn	Phe	Trp	Lys	Gly	Val	Ala	Ser	Leu	Leu	Phe	Val
		290				295					300				
Ile	Thr	Ile	Leu	Leu	Gln	Thr	Phe	Pro	Phe	Cys	Tyr	Thr	Cys	Asn	Met
305					310					315					320
Leu	Ile	Asp	Asp	Ala	Gln	Asp	Leu	Ser	Asn	Glu	Ile	Phe	Gln	Ser	Asn
				325					330					335	

Trp Val Asp Ala Glu Pro Arg Tyr Lys Ala Thr Leu Val Leu Phe Met  
340 345 350

His His Val Gln Gln Pro Ile Ile Phe Ile Ala Gly Gly Ile Phe Pro  
355 360 365

Ile Ser Met Asn Ser Asn Ile Thr Val Ala Lys Phe Ala Phe Ser Ile  
370 375 380

Ile Thr Ile Val Arg Gln Met Asn Leu Ala Glu Gln Phe Gln  
385 390 395

<210> 51  
<211> 1233  
<212> DNA  
<213> Drosophila Melanogaster DOR120

<400> 51  
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cttgatgcca gcgactacta ctaccgcata gcatttttcc tgggctggac cccgccaag 120  
ggggctctgc tccgatggat ctactccctg tggactctga ccacgatgtg gctgggtatc 180  
gtgtacctgc cgctcggact gagcctcacc tatgtgaagc atttcgatag attcacgccg 240  
acggagttcc tgacctccct gcaggcggat atcaactgca tcgggaacgt gatcaagtca 300  
tgcgtaactt attcccagat gtggcgtttt cgccggatga atgagcttat ctcgccctg 360  
gacaagagat gtgtgactac gacacagcgt cgaattttcc ataagatggg ggcacggggt 420  
aatctcatcg tgattctgtt cttgtccacg tacttgggct tctgctttct aactctgttc 480  
acttcggttt tcgctggcaa agctccttgg cagctgtaca acccactggg ggactggcgg 540  
aaaggccatt ggcagctatg gattgcctcc atcctggagt actgtgtggg ctccattggc 600  
accatgcagg agttgatgtc cgacacctac gccatagtgt tcattctcctt gttccgctgc 660  
cacctggcta ttctcagaga tcgcatagct aatctgcggc aggatccgaa actcagtga 720  
atggaacact atgagcagat ggtggcctgc attcaggatc atcgaaccat catacagtgc 780  
tcccagatta ttcgacccat cctgtcgatc actatctttg ccagttcat gctgggtggc 840  
attgacttgg gtctggcggc catcagcacc ctcttctttc cgaacacccat ttggacgatc 900  
atggcaaacg tgtcgttcat cgtggccatc tgtacagagt cctttccatg ctgcatgctc 960  
tgcgagcatc tgatcgagga ctccgtccat gtgagcaacg ccctgttcca ctcaaactgg 1020  
ataaccgcgg acaggagcta caagtcggcg gttctgtatt tcctgcaccg ggctcagcaa 1080

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cccattcaat tcacggccgg ctccatattt cccatttcgg tgcagagcaa catagccgtg 1140
gccaaagttcg cgttcacaat catcacaatc gtgaaccaa tgaatctggg cgagaagttc 1200
ttcagtgaca ggagcaatgg cgatataaat cct 1233

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<210> 52
<211> 411
<212> PRT
<213> Drosophila Melanogaster DOR120
<400> 52

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Met Thr Lys Phe Phe Phe Lys Arg Leu Gln Thr Ala Pro Leu Asp Gln
1          5          10          15
Glu Val Ser Ser Leu Asp Ala Ser Asp Tyr Tyr Tyr Arg Ile Ala Phe
20          25          30
Phe Leu Gly Trp Thr Pro Pro Lys Gly Ala Leu Leu Arg Trp Ile Tyr
35          40          45
Ser Leu Trp Thr Leu Thr Thr Met Trp Leu Gly Ile Val Tyr Leu Pro
50          55          60
Leu Gly Leu Ser Leu Thr Tyr Val Lys His Phe Asp Arg Phe Thr Pro
65          70          75          80
Thr Glu Phe Leu Thr Ser Leu Gln Val Asp Ile Asn Cys Ile Gly Asn
85          90          95
Val Ile Lys Ser Cys Val Thr Tyr Ser Gln Met Trp Arg Phe Arg Arg
100         105         110
Met Asn Glu Leu Ile Ser Ser Leu Asp Lys Arg Cys Val Thr Thr Thr
115         120         125
Gln Arg Arg Ile Phe His Lys Met Val Ala Arg Val Asn Leu Ile Val
130         135         140
Ile Leu Phe Leu Ser Thr Tyr Leu Gly Phe Cys Phe Leu Thr Leu Phe
145         150         155         160
Thr Ser Val Phe Ala Gly Lys Ala Pro Trp Gln Leu Tyr Asn Pro Leu
165         170         175
Val Asp Trp Arg Lys Gly His Trp Gln Leu Trp Ile Ala Ser Ile Leu
180         185         190
Glu Tyr Cys Val Val Ser Ile Gly Thr Met Gln Glu Leu Met Ser Asp
195         200         205
Thr Tyr Ala Ile Val Phe Ile Ser Leu Phe Arg Cys His Leu Ala Ile
210         215         220

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Leu Arg Asp Arg Ile Ala Asn Leu Arg Gln Asp Pro Lys Leu Ser Glu  
 225 230 235 240  
 Met Glu His Tyr Glu Gln Met Val Ala Cys Ile Gln Asp His Arg Thr  
 245 250 255  
 Ile Ile Gln Cys Ser Gln Ile Ile Arg Pro Ile Leu Ser Ile Thr Ile  
 260 265 270  
 Phe Ala Gln Phe Met Leu Val Gly Ile Asp Leu Gly Leu Ala Ala Ile  
 275 280 285  
 Ser Ile Leu Phe Phe Pro Asn Thr Ile Trp Thr Ile Met Ala Asn Val  
 290 295 300  
 Ser Phe Ile Val Ala Ile Cys Thr Glu Ser Phe Pro Cys Cys Met Leu  
 305 310 315 320  
 Cys Glu His Leu Ile Glu Asp Ser Val His Val Ser Asn Ala Leu Phe  
 325 330 335  
 His Ser Asn Trp Ile Thr Ala Asp Arg Ser Tyr Lys Ser Ala Val Leu  
 340 345 350  
 Tyr Phe Leu His Arg Ala Gln Gln Pro Ile Gln Phe Thr Ala Gly Ser  
 355 360 365  
 Thr Phe Pro Ile Ser Val Gln Ser Asn Ile Ala Val Ala Lys Phe Ala  
 370 375 380  
 Phe Thr Ile Ile Thr Ile Val Asn Gln Met Asn Leu Gly Glu Lys Phe  
 385 390 395 400  
 Phe Ser Asp Arg Ser Asn Gly Asp Ile Asn Pro  
 405 410

<210> 53  
 <211> 1203  
 <212> DNA  
 <213> Drosophila Melanogaster DOR121

<400> 53  
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 tcggtggcca gtttcatgcc cctgaccatt gcgtttggcc tgcaaaacgt ccaaaatgtg 180  
 gagcaattaa ccgactcact ctgctcgggt ctcgtggatt tgctggccct gtgcaaaatc 240  
 gggcttttcc tttggcttta caaggacttc aagttcctaa tagggcagtt ctattgtgtt 300  
 ttgcaaacgg aaacccacac cgctgtcgct gaaatgatag tgaccaggga aagtcgtcgg 360

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gatcagttca tcagtgtat gtatgectac tgtttcatta cggtggcct ttcggcctgc 420
ctgatgtccc ctctatccat gctgattagc taccacgaac aggtgaattg cagccgaaat 480
ttccatttcc cagtgtgtaa gaaaaagtac tgcttaatat ccagaatatt aagatacagt 540
ttctgcagat atccctggga caatatgaag ctgtccaact acatcatttc ctatttctgg 600
aatgtgtgtg ctgcattggg cgtggcactg cccaccgttt gtgtggacac actgttctgt 660
tctctgagcc ataattctctg tgccctattc cagattgcca ggcacaaaat gatgcacttt 720
gagggcagaa ataccaaaga gactcatgag aacttaaagc acgtgtttca actatatgcg 780
ttgtgtttga acctgggcca tttcttaaac gaatatttca gaccgctcat ctgccagttt 840
gtggcagcct cactgcactt gtgtgtctctg tgctaccaac tgtctgcaa tctctgcag 900
ccagcgttac tcttctatgc cgcattttacg gcagcagttg ttggccaggt gtctatatac 960
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tccagctggc cccatctgct gcaggaaaac ctgcagcttg taagctcctt aaaaattgcc 1080
atgatgcgat cgagtttggg atgtcccatc gatggttact tcttcgaggc caatcgggag 1140
acgctcatca cgggtagtaa agcgtttata aaagtgtcca aaaagacacc tcaagtgaat 1200
gat 1203

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<210> 54
<211> 401
<212> PRT
<213> Drosophila Melanogaster DOR121

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<400> 54

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Leu Gly Leu Glu Leu Leu His Glu Gln Asp Val Gly His Arg Tyr Pro
20           25           30
Trp Arg Ser Ile Cys Cys Ile Leu Ser Val Ala Ser Phe Met Pro Leu
35           40           45
Thr Ile Ala Phe Gly Leu Gln Asn Val Gln Asn Val Glu Gln Leu Thr
50           55           60
Asp Ser Leu Cys Ser Val Leu Val Asp Leu Leu Ala Leu Cys Lys Ile
65           70           75           80
Gly Leu Phe Leu Trp Leu Tyr Lys Asp Phe Lys Phe Leu Ile Gly Gln
85           90           95

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Phe Tyr Cys Val Leu Gln Thr Glu Thr His Thr Ala Val Ala Glu Met  
100 105 110  
Ile Val Thr Arg Glu Ser Arg Arg Asp Gln Phe Ile Ser Ala Met Tyr  
115 120 125  
Ala Tyr Cys Phe Ile Thr Ala Gly Leu Ser Ala Cys Leu Met Ser Pro  
130 135 140  
Leu Ser Met Leu Ile Ser Tyr His Glu Gln Val Asn Cys Ser Arg Asn  
145 150 155 160  
Phe His Phe Pro Val Cys Lys Lys Lys Tyr Cys Leu Ile Ser Arg Ile  
165 170 175  
Leu Arg Tyr Ser Phe Cys Arg Tyr Pro Trp Asp Asn Met Lys Leu Ser  
180 185 190  
Asn Tyr Ile Ile Ser Tyr Phe Trp Asn Val Cys Ala Ala Leu Gly Val  
195 200 205  
Ala Leu Pro Thr Val Cys Val Asp Thr Leu Phe Cys Ser Leu Ser His  
210 215 220  
Asn Leu Cys Ala Leu Phe Gln Ile Ala Arg His Lys Met Met His Phe  
225 230 235 240  
Glu Gly Arg Asn Thr Lys Glu Thr His Glu Asn Leu Lys His Val Phe  
245 250 255  
Gln Leu Tyr Ala Leu Cys Leu Asn Leu Gly His Phe Leu Asn Glu Tyr  
260 265 270  
Phe Arg Pro Leu Ile Cys Gln Phe Val Ala Ala Ser Leu His Leu Cys  
275 280 285  
Val Leu Cys Tyr Gln Leu Ser Ala Asn Ile Leu Gln Pro Ala Leu Leu  
290 295 300  
Phe Tyr Ala Ala Phe Thr Ala Ala Val Val Gly Gln Val Ser Ile Tyr  
305 310 315 320  
Cys Phe Cys Gly Ser Ser Ile His Ser Glu Cys Gln Leu Phe Gly Gln  
325 330 335  
Ala Ile Tyr Glu Ser Ser Trp Pro His Leu Leu Gln Glu Asn Leu Gln  
340 345 350  
Leu Val Ser Ser Leu Lys Ile Ala Met Met Arg Ser Ser Leu Gly Cys  
355 360 365  
Pro Ile Asp Gly Tyr Phe Phe Glu Ala Asn Arg Glu Thr Leu Ile Thr  
370 375 380

Val Ser Lys Ala Phe Ile Lys Val Ser Lys Lys Thr Pro Gln Val Asn  
 385 390 395 400

Asp

<210> 55  
 <211> 1122  
 <212> DNA  
 <213> Drosophila Melanogaster DOR14

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 ttgcacgttc catttacatt cttgtttgtg ttgcttttgt ggttggaggc aatcaagagc 180  
 agggatatac agcataccgc cgatgtcctt ttgatttgcc taaccaccac tgccttggga 240  
 ggtaaagtta tcaatatctg gaagtatgcc catgtggccc aaggcatttt gtccgagtgg 300  
 agcacgtggg atcttttcga gctgaggagc aaacaggaag tggatatgtg gcgattcgag 360  
 catcgacgtt tcaatcgtgt ttttatgttt tactgtttgt gcagtgtgg tgtaatccca 420  
 tttattgtga ttcaaccgtt gtttgatata ccaaactgat tgcccttctg gatgtggaca 480  
 ccattcgatt ggagcagcc tgttctcttc tggatgcat tcatctatca ggccacaacc 540  
 attcctattg cctgtgcttg caacgtaacc atggacgctg ttaattggta cttgatgctg 600  
 catctgtcct tgtgtttgcg tatgttgggc cagcgattga gtaagcttca gcatgatgac 660  
 aaggatctga gggagaagt cctggaactg atccatctgc accagcgact caagcaacag 720  
 gccttgagca ttgaaatctt tatttcgaag agcacgttca cccaaattct ggtcagttcc 780  
 cttatcattt gcttcaccat ttacagcatg cagatggact tgccaggatt tgccgccatg 840  
 atgcagtacc tagtggccat gatcatgcag gtcagtctgc ccaccatata tggtaacgcc 900  
 gtcategatt ctgcaaatat gttgaccgat tccatgtaca attcggattg gccggatatg 960  
 aattgccgaa tgcgtcgcct agttttaatg tttatggtgt acttaaactcg accggtgacc 1020  
 ttaaaagccg gtggcttttt tcatattggt ttacctctgt ttaccaaggt tgtattttct 1080  
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 <211> 374  
 <212> PRT  
 <213> Drosophila Melanogaster DOR14



<400> 56

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Trp Thr Asn Trp Gln Ala Tyr Ala Leu His Val Pro Phe Thr Phe Leu  
35 40 45  
Phe Val Leu Leu Leu Trp Leu Glu Ala Ile Lys Ser Arg Asp Ile Gln  
50 55 60  
His Thr Ala Asp Val Leu Leu Ile Cys Leu Thr Thr Thr Ala Leu Gly  
65 70 75 80  
Gly Lys Val Ile Asn Ile Trp Lys Tyr Ala His Val Ala Gln Gly Ile  
85 90 95  
Leu Ser Glu Trp Ser Thr Trp Asp Leu Phe Glu Leu Arg Ser Lys Gln  
100 105 110  
Glu Val Asp Met Trp Arg Phe Glu His Arg Arg Phe Asn Arg Val Phe  
115 120 125  
Met Phe Tyr Cys Leu Cys Ser Ala Gly Val Ile Pro Phe Ile Val Ile  
130 135 140  
Gln Pro Leu Phe Asp Ile Pro Asn Arg Leu Pro Phe Trp Met Trp Thr  
145 150 155 160  
Pro Phe Asp Trp Gln Gln Pro Val Leu Phe Trp Tyr Ala Phe Ile Tyr  
165 170 175  
Gln Ala Thr Thr Ile Pro Ile Ala Cys Ala Cys Asn Val Thr Met Asp  
180 185 190  
Ala Val Asn Trp Tyr Leu Met Leu His Leu Ser Leu Cys Leu Arg Met  
195 200 205  
Leu Gly Gln Arg Leu Ser Lys Leu Gln His Asp Asp Lys Asp Leu Arg  
210 215 220  
Glu Lys Phe Leu Glu Leu Ile His Leu His Gln Arg Leu Lys Gln Gln  
225 230 235 240  
Ala Leu Ser Ile Glu Ile Phe Ile Ser Lys Ser Thr Phe Thr Gln Ile  
245 250 255  
Leu Val Ser Ser Leu Ile Ile Cys Phe Thr Ile Tyr Ser Met Gln Met  
260 265 270  
Asp Leu Pro Gly Phe Ala Ala Met Met Gln Tyr Leu Val Ala Met Ile

275	280	285
Met Gln Val Met Leu Pro Thr Ile Tyr Gly Asn Ala Val Ile Asp Ser		
290	295	300
Ala Asn Met Leu Thr Asp Ser Met Tyr Asn Ser Asp Trp Pro Asp Met		
305	310	315
Asn Cys Arg Met Arg Arg Leu Val Leu Met Phe Met Val Tyr Leu Asn		
	325	330
Arg Pro Val Thr Leu Lys Ala Gly Gly Phe Phe His Ile Gly Leu Pro		
	340	345
Leu Phe Thr Lys Val Val Phe Ser Thr Leu Glu Asn Pro Cys Ile Ser		
	355	360
Tyr Leu Tyr Phe Arg Pro		
370		

<210> 57  
 <211> 1140  
 <212> DNA  
 <213> Drosophila Melanogaster DOR16

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 gcccatctgc tcttcgtgtt cgccttcgcc atggtggtgg tgggtgcggt gggcgaggtg 180  
 tcgtacggct gtgtccacct ggacaacctg gtggtggcgc tggaggcctt ctgccccgga 240  
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 gcggagttgg tccagcgcct gcgggctatt ttgtgggaat cgcggcggca ggaggcccag 360  
 aggatgctgg tcggactggc caccacggcc aacaggctca gcctgttggt gctcagctct 420  
 ggcacggcga caaatgccgc cttcaccttg caaccgctga ttatgggtct ctaccgctgg 480  
 attgtgcagc tgccaggcca aaccgagctg ccctttaata tcatactgcc ctcgtttgcc 540  
 gtgcagccag gagtctttcc gctcacctac gtgctgctga ccgcttcggt tgccctgcacc 600  
 gttttcgctt tcagcttcgt ggacggattc ttcatttgct cgtgcctcta catctgcggc 660  
 gctttccggc tgggtgcagca ggacattcgc aggatatttg ccgatttgca tggcgactca 720  
 gtggatgtgt tcaccgagga gatgaacgcg gaggtgcggc acagactggc ccaagttgtc 780  
 gagcggcaca atgcgattat cgatttctgc acggacctaa cacgccagtt caccgttatc 840  
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ttggtgagcc ccttttcaga ggccttcctt tggggcgggt atccttgggt ttgtcgcgcc 960  
 actggctttt cgcacgcct gcattcggcg gctgttttaa aagtttttcc ctgttttcac 1020  
 tgtttgctgt ttttccttgg cttttccagc cgctccgttc tgattcgggt ttcccgattt 1080  
 gtttgtttgc tttgtggctg cggtcgggc tctctccggt ggcaatttat aagcgcatga 1140

<210> 58  
 <211> 379  
 <212> PRT  
 <213> Drosophila Melanogaster DOR16

<400> 58

Met	Thr	Asp	Ser	Gly	Gln	Pro	Ala	Ile	Ala	Asp	His	Phe	Tyr	Arg	Ile	1	5	10	15
Pro	Arg	Ile	Ser	Gly	Leu	Ile	Val	Gly	Leu	Trp	Pro	Gln	Arg	Ile	Arg	20	25	30	
Gly	Gly	Gly	Gly	Arg	Pro	Trp	His	Ala	His	Leu	Leu	Phe	Val	Phe	Ala	35	40	45	
Phe	Ala	Met	Val	Val	Val	Gly	Ala	Val	Gly	Glu	Val	Ser	Tyr	Gly	Cys	50	55	60	
Val	His	Leu	Asp	Asn	Leu	Val	Val	Ala	Leu	Glu	Ala	Phe	Cys	Pro	Gly	65	70	75	80
Thr	Thr	Lys	Ala	Val	Cys	Val	Leu	Lys	Leu	Trp	Val	Phe	Phe	Arg	Ser	85	90	95	
Asn	Arg	Arg	Trp	Ala	Glu	Leu	Val	Gln	Arg	Leu	Arg	Ala	Ile	Leu	Trp	100	105	110	
Glu	Ser	Arg	Arg	Gln	Glu	Ala	Gln	Arg	Met	Leu	Val	Gly	Leu	Ala	Thr	115	120	125	
Thr	Ala	Asn	Arg	Leu	Ser	Leu	Leu	Leu	Leu	Ser	Ser	Gly	Thr	Ala	Thr	130	135	140	
Asn	Ala	Ala	Phe	Thr	Leu	Gln	Pro	Leu	Ile	Met	Gly	Leu	Tyr	Arg	Trp	145	150	155	160
Ile	Val	Gln	Leu	Pro	Gly	Gln	Thr	Glu	Leu	Pro	Phe	Asn	Ile	Ile	Leu	165	170	175	
Pro	Ser	Phe	Ala	Val	Gln	Pro	Gly	Val	Phe	Pro	Leu	Thr	Tyr	Val	Leu	180	185	190	
Leu	Thr	Ala	Ser	Gly	Ala	Cys	Thr	Val	Phe	Ala	Phe	Ser	Phe	Val	Asp	195	200	205	

Gly Phe Phe Ile Cys Ser Cys Leu Tyr Ile Cys Gly Ala Phe Arg Leu  
 210 215 220  
 Val Gln Gln Asp Ile Arg Arg Ile Phe Ala Asp Leu His Gly Asp Ser  
 225 230 235 240  
 Val Asp Val Phe Thr Glu Glu Met Asn Ala Glu Val Arg His Arg Leu  
 245 250 255  
 Ala Gln Val Val Glu Arg His Asn Ala Ile Ile Asp Phe Cys Thr Asp  
 260 265 270  
 Leu Thr Arg Gln Phe Thr Val Ile Val Leu Met His Phe Leu Ser Ala  
 275 280 285  
 Ala Phe Val Leu Cys Ser Thr Ile Leu Asp Ile Met Leu Val Ser Pro  
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 Phe Ser Glu Ala Phe Leu Trp Gly Gly Tyr Pro Trp Val Cys Arg Ala  
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 Thr Gly Phe Ser His Arg Leu His Ser Ala Ala Val Leu Lys Val Phe  
 325 330 335  
 Pro Cys Phe His Cys Leu Leu Phe Phe Pro Gly Phe Ser Ser Arg Ser  
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<211> 1215

<212> DNA

<213> Drosophila Melanogaster . DOR20

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agctacatgt ccgaggttgt gaaagccatc tttatcctgg ccaccagtgc agggcacacc	240
accaagctgc tgtccataaa ggcgaacaat gtgcagatgg aggagctctt taggagattg	300
gataacgaag agttccgtcc tagaggcgcc aacgaagagt tgatctttgc agcagcctgt	360
gaaagaagta ggaagcttcg ggacttctat ggagcgcttt cgtttgccgc cttgagcatg	420
attctcatat cccagttcgc cttggactgg tcccaccttc cgctcaaaac atacaatccg	480

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<211> 405
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<213> Drosophila Melanogaster DOR20

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<400> 60

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20        25        30
His Gln Val Asn Tyr Val His Val Ile Val Phe Trp Val Leu Leu Phe
35        40        45
Asp Leu Leu Leu Val Leu His Val Met Ala Asn Leu Ser Tyr Met Ser
50        55        60
Glu Val Val Lys Ala Ile Phe Ile Leu Ala Thr Ser Ala Gly His Thr
65        70        75        80
Thr Lys Leu Leu Ser Ile Lys Ala Asn Asn Val Gln Met Glu Glu Leu
85        90        95
Phe Arg Arg Leu Asp Asn Glu Glu Phe Arg Pro Arg Gly Ala Asn Glu
100       105       110

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Glu Leu Ile Phe Ala Ala Ala Cys Glu Arg Ser Arg Lys Leu Arg Asp  
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 Phe Tyr Gly Ala Leu Ser Phe Ala Ala Leu Ser Met Ile Leu Ile Pro  
 130 135 140  
 Gln Phe Ala Leu Asp Trp Ser His Leu Pro Leu Lys Thr Tyr Asn Pro  
 145 150 155 160  
 Leu Gly Glu Asn Thr Gly Ser Pro Ala Tyr Trp Leu Leu Tyr Cys Tyr  
 165 170 175  
 Gln Cys Leu Ala Leu Ser Val Ser Cys Ile Thr Asn Ile Gly Phe Asp  
 180 185 190  
 Ser Leu Cys Ser Ser Leu Phe Ile Phe Leu Lys Cys Gln Leu Asp Ile  
 195 200 205  
 Leu Ala Val Arg Leu Asp Lys Ile Gly Arg Leu Ile Thr Thr Ser Gly  
 210 215 220  
 Gly Thr Val Glu Gln Gln Leu Lys Glu Asn Ile Arg Tyr His Met Thr  
 225 230 235 240  
 Ile Val Glu Leu Ser Lys Thr Val Glu Arg Leu Leu Cys Lys Pro Ile  
 245 250 255  
 Ser Val Gln Ile Phe Cys Ser Val Leu Val Leu Thr Ala Asn Phe Tyr  
 260 265 270  
 Ala Ile Ala Val Val Ser Cys Glu Phe Ala Thr Arg Arg Leu Ser Val  
 275 280 285  
 Cys Asp Leu Ser Gly Val His Val Asp Ser Asp Phe Tyr Ile Val Leu  
 290 295 300  
 Leu Cys Arg Val Gly Ile Pro Tyr Pro Lys Cys Leu Pro Arg Pro Val  
 305 310 315 320  
 Met Asn Phe Ile Val Ser Glu Val Thr Gln Arg Ser Leu Asp Leu Pro  
 325 330 335  
 His Glu Leu Tyr Lys Thr Ser Trp Val Asp Trp Asp Tyr Arg Ser Arg  
 340 345 350  
 Arg Ile Ala Leu Leu Phe Met Gln Arg Leu His Ser Thr Leu Arg Ile  
 355 360 365  
 Arg Thr Leu Asn Pro Ser Leu Gly Phe Asp Leu Met Leu Phe Ser Ser  
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His Asn Glu Ala His  
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<211> 1203  
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cgcgcctttc tgagcttgcc cctgtaccga tggatcaact tgttcatcat gtgcaatgtg 180  
atgaccattt tctggaccat gttcgtggcc ctgcccaggt cgaagaacgt gatcgaaatg 240  
ggcgacgact tggtttggat ttcggggatg gcactgggtg tcaccaagat cttttacatg 300  
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ctgagacccc ataatatcga tgaggagggtg ttgggttggc agagactgtg ctacgtgata 420  
gaatcgggtc tatatatcaa ctgcttttgc ctggtcaact tcttcagtgc cgctattttc 480  
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<212> PRT

<213> Drosophila Melanogaster DOR25

<400> 62

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Pro Arg Leu Ala Phe Tyr Tyr Val Arg Ala Phe Leu Ser Leu Pro Leu  
35 40 45  
Tyr Arg Trp Ile Asn Leu Phe Ile Met Cys Asn Val Met Thr Ile Phe  
50 55 60  
Trp Thr Met Phe Val Ala Leu Pro Glu Ser Lys Asn Val Ile Glu Met  
65 70 75 80  
Gly Asp Asp Leu Val Trp Ile Ser Gly Met Ala Leu Val Phe Thr Lys  
85 90 95  
Ile Phe Tyr Met His Leu Arg Cys Asp Glu Ile Asp Glu Leu Ile Ser  
100 105 110  
Asp Phe Glu Tyr Tyr Asn Arg Glu Leu Arg Pro His Asn Ile Asp Glu  
115 120 125  
Glu Val Leu Gly Trp Gln Arg Leu Cys Tyr Val Ile Glu Ser Gly Leu  
130 135 140  
Tyr Ile Asn Cys Phe Cys Leu Val Asn Phe Phe Ser Ala Ala Ile Phe  
145 150 155 160  
Leu Gln Pro Leu Leu Gly Glu Gly Lys Leu Pro Phe His Ser Val Tyr  
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Pro Phe Gln Trp His Arg Leu Asp Leu His Pro Tyr Thr Phe Trp Phe  
180 185 190  
Leu Tyr Ile Trp Gln Ser Leu Thr Ser Gln His Asn Leu Met Ser Ile  
195 200 205  
Leu Met Val Asp Met Val Gly Ile Ser Thr Phe Leu Gln Thr Ala Leu  
210 215 220  
Asn Leu Lys Leu Leu Cys Ile Glu Ile Arg Lys Leu Gly Asp Met Glu  
225 230 235 240  
Val Ser Asp Lys Arg Phe His Glu Glu Phe Cys Arg Val Val Arg Phe  
245 250 255  
His Gln His Ile Ile Lys Leu Val Gly Lys Ala Asn Arg Ala Phe Asn  
260 265 270



Gly Ala Phe Asn Ala Gln Leu Met Ala Ser Phe Ser Leu Ile Ser Ile  
 275 280 285  
 Ser Thr Phe Glu Thr Met Ala Ala Ala Val Asp Pro Lys Met Ala  
 290 295 300  
 Ala Lys Phe Val Leu Leu Met Leu Val Ala Phe Ile Gln Leu Ser Leu  
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 Trp Cys Val Ser Gly Thr Leu Val Tyr Thr Gln Ser Val Glu Val Ala  
 325 330 335  
 Gln Ala Ala Phe Asp Ile Asn Asp Trp His Thr Lys Ser Pro Gly Ile  
 340 345 350  
 Gln Arg Asp Ile Ser Phe Val Ile Leu Arg Ala Gln Lys Pro Leu Met  
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 <213> Drosophila Melanogaster DOR28

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 <211> 456  
 <212> PRT  
 <213> Drosophila Melanogaster DOR28

<400> 64

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			20					25					30		
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		35					40					45			
Leu	Ser	Val	Ser	Ser	Leu	Ala	Ser	Leu	Tyr	Gly	His	Trp	Gln	Met	Leu
		50				55					60				
Ala	Arg	Tyr	Ile	His	Asp	Ile	Pro	Arg	Ile	Gly	Glu	Thr	Ala	Gly	Thr
65					70					75					80
Ala	Leu	Gln	Phe	Leu	Thr	Ser	Ile	Ala	Lys	Met	Trp	Tyr	Phe	Leu	Phe
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Ala	His	Arg	Gln	Ile	Tyr	Glu	Leu	Leu	Arg	Lys	Ala	Arg	Cys	His	Glu
			100					105					110		
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Ile	Thr	Thr	Asn	Tyr	Phe	Ile	Asn	Ser	Phe	Val	Ile	Asn	Leu	Tyr	Arg		165	170	175
Tyr	Phe	Thr	Lys	Pro	Lys	Gly	Ser	Tyr	Asp	Ile	Met	Leu	Pro	Leu	Pro	180	185	190	
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His	Ile	Gln	Met	Tyr	Leu	Glu	Thr	Cys	Ser	Leu	Tyr	Ile	Cys	Gly	Met	210	215	220	
Cys	Ala	Val	Ser	Phe	Asp	Gly	Val	Phe	Ile	Val	Leu	Cys	Leu	His	Ser	225	230	235	240
Val	Gly	Leu	Met	Arg	Ser	Leu	Asn	Gln	Met	Val	Glu	Gln	Ala	Thr	Ser		245	250	255
Glu	Leu	Val	Pro	Pro	Asp	Arg	Arg	Val	Glu	Tyr	Leu	Arg	Cys	Cys	Ile	260	265	270	
Tyr	Gln	Tyr	Gln	Arg	Val	Ala	Asn	Phe	Ala	Thr	Glu	Val	Asn	Asn	Cys	275	280	285	
Phe	Arg	His	Ile	Thr	Phe	Thr	Gln	Phe	Leu	Leu	Ser	Leu	Phe	Asn	Trp	290	295	300	
Gly	Leu	Ala	Leu	Phe	Gln	Met	Ser	Val	Gly	Leu	Gly	Asn	Asn	Ser	Ser	305	310	315	320
Ile	Thr	Met	Ile	Arg	Met	Thr	Met	Tyr	Leu	Val	Ala	Ala	Gly	Tyr	Gln		325	330	335
Ile	Val	Val	Tyr	Cys	Tyr	Asn	Gly	Gln	Arg	Phe	Ala	Thr	Ala	Ser	Glu	340	345	350	
Glu	Ile	Ala	Asn	Ala	Phe	Tyr	Gln	Val	Arg	Trp	Tyr	Gly	Glu	Ser	Arg	355	360	365	
Glu	Phe	Arg	His	Leu	Ile	Arg	Met	Met	Leu	Met	Arg	Thr	Asn	Arg	Gly	370	375	380	
Phe	Arg	Leu	Asp	Val	Ser	Trp	Phe	Met	Gln	Met	Ser	Leu	Pro	Thr	Leu	385	390	395	400
Met	Ala	Val	Ser	Ser	Gly	Ala	Glu	Gln	Ser	Arg	Gly	Pro	Ala	Gly	Pro		405	410	415
Ala	Gly	Pro	Ala	Gly	Pro	Pro	Pro	Arg	Val	Pro	Ser	Tyr	Ser	Gln	Phe	420	425	430	

His Leu Ile Asp Ser Gln Met Val Arg Thr Ser Gly Gln Tyr Phe Leu  
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<211> 1239  
<212> DNA  
<213> Drosophila Melanogaster DOR30

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 260 265 270  
 Cys Ile Ser Pro Val Ile Ser Arg Thr Ile Phe Val Gln Phe Leu Ile  
 275 280 285  
 Thr Ala Ala Ile Met Gly Thr Thr Met Ile Asn Ile Phe Ile Phe Ala  
 290 295 300  
 Asn Thr Asn Thr Lys Ile Ala Ser Ile Ile Tyr Leu Leu Ala Val Thr  
 305 310 315 320  
 Leu Gln Thr Ala Pro Cys Cys Tyr Gln Ala Thr Ser Leu Met Leu Asp  
 325 330 335  
 Asn Glu Arg Leu Ala Leu Ala Ile Phe Gln Cys Gln Trp Leu Gly Gln  
 340 345 350  
 Ser Ala Arg Phe Arg Lys Met Leu Leu Tyr Tyr Leu His Arg Ala Gln  
 355 360 365  
 Gln Pro Ile Thr Leu Thr Ala Met Lys Leu Phe Pro Ile Asn Leu Ala  
 370 375 380  
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<211> 1191

<212> DNA

<213> Drosophila Melanogaster DOR31

<400> 67

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 <211> 397  
 <212> PRT  
 <213> Drosophila Melanogaster DOR31

<400> 68

Met	Ile	Phe	Lys	Tyr	Ile	Gln	Glu	Pro	Val	Leu	Gly	Ser	Leu	Phe	Arg
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Ser	Arg	Asp	Ser	Leu	Ile	Tyr	Leu	Asn	Arg	Ser	Ile	Asp	Gln	Met	Gly
			20					25					30		
Trp	Arg	Leu	Pro	Pro	Arg	Thr	Lys	Pro	Tyr	Trp	Trp	Leu	Tyr	Tyr	Ile
		35					40					45			
Trp	Thr	Leu	Val	Val	Ile	Val	Leu	Val	Phe	Ile	Phe	Ile	Pro	Tyr	Gly
	50				55						60				
Leu	Ile	Met	Thr	Gly	Ile	Lys	Glu	Phe	Lys	Asn	Phe	Thr	Thr	Thr	Asp
65				70					75						80
Leu	Phe	Thr	Tyr	Val	Gln	Val	Pro	Val	Asn	Thr	Asn	Ala	Ser	Ile	Met
				85				90						95	
Lys	Gly	Ile	Ile	Val	Leu	Phe	Met	Arg	Arg	Arg	Phe	Ser	Arg	Ala	Gln
			100					105					110		
Lys	Met	Met	Asp	Ala	Met	Asp	Ile	Arg	Cys	Thr	Lys	Met	Glu	Glu	Lys
	115						120					125			
Val	Gln	Val	His	Arg	Ala	Ala	Ala	Leu	Cys	Asn	Arg	Val	Val	Val	Ile
	130					135					140				

Tyr His Cys Ile Tyr Phe Gly Tyr Leu Ser Met Ala Leu Thr Gly Ala  
 145 150 155 160  
 Leu Val Ile Gly Lys Thr Pro Phe Cys Leu Tyr Asn Pro Leu Val Asn  
 165 170 175  
 Pro Asp Asp His Phe Tyr Leu Ala Thr Ala Ile Glu Ser Val Thr Met  
 180 185 190  
 Ala Gly Ile Ile Leu Ala Asn Leu Ile Leu Asp Val Tyr Pro Ile Ile  
 195 200 205  
 Tyr Val Val Val Leu Arg Ile His Met Glu Leu Leu Ser Glu Arg Ile  
 210 215 220  
 Lys Thr Leu Arg Thr Asp Val Glu Lys Gly Asp Asp Gln His Tyr Ala  
 225 230 235 240  
 Glu Leu Val Glu Cys Val Lys Asp His Lys Leu Ile Val Glu Tyr Gly  
 245 250 255  
 Asn Thr Leu Arg Pro Met Ile Ser Ala Thr Met Phe Ile Gln Leu Leu  
 260 265 270  
 Ser Val Gly Leu Leu Leu Gly Leu Ala Ala Val Ser Met Gln Phe Tyr  
 275 280 285  
 Asn Thr Val Met Glu Arg Val Val Ser Gly Val Tyr Thr Ile Ala Ile  
 290 295 300  
 Leu Ser Gln Thr Phe Pro Phe Cys Tyr Val Cys Glu Gln Leu Ser Ser  
 305 310 315 320  
 Asp Cys Glu Ser Leu Thr Asn Thr Leu Phe His Ser Lys Trp Ile Gly  
 325 330 335  
 Ala Glu Arg Arg Tyr Arg Thr Thr Met Leu Tyr Phe Ile His Asn Val  
 340 345 350  
 Gln Gln Ser Ile Leu Phe Thr Ala Gly Gly Ile Phe Pro Ile Cys Leu  
 355 360 365  
 Asn Thr Asn Ile Lys Met Ala Lys Phe Ala Phe Ser Val Val Thr Ile  
 370 375 380  
 Val Asn Glu Met Asp Leu Ala Glu Lys Leu Arg Arg Glu  
 385 390 395

<210> 69  
 <211> 1176  
 <212> DNA  
 <213> Drosophila Melanogaster DOR32  
 <400> 69



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 agtctaaact caaaactggc cgaactatat ccgaagacca cgctggacag gatctatcac 360  
 cgggtgaatg atcactattg gaccaagtca tttgtatatt tggttattat ctacattggg 420  
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 aacgttttca cctacatgca ctgctatccg tactttttgt atgatcctga gaaggatccg 540  
 gtttggatct acatcagcat ctatgctctg gaatggttgc acagcacaca gatggtcatt 600  
 tcgaacattg gcgcggatat ctggctgctg tacttttcagg tgcagataaa tctccacttc 660  
 aggggcatta tacgatcact ggcggatcac aagcccagtg tgaagcacga ccaggaggac 720  
 aggaaattca ttgcgaaaat tgtcgacaag cagggtgcacc tggtcagttt gcaaaacgat 780  
 ctgaatggta tctttggaaa atcgctgctt ctaagcctgc tgaccaccgc agcggttacc 840  
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 atcttcatcg ggacttctgt gatgcaggtc tacctggtgt gctattacgg tcagcaagtt 960  
 ctcgacttga gcggcgaggt ggcccacgcc gtgtacaatc atgattttca cgatgcttct 1020  
 atagcgtaca agaggtaacct gctcataatc attatcaggg cgcagcagcc cgtggaactt 1080  
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<210> 70  
 <211> 392  
 <212> PRT  
 <213> Drosophila Melanogaster DOR32

<400> 70

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Thr Val Phe Trp Ile Met Gly Tyr Asp Met Leu Gly Val Pro Lys Thr  
 20 25 30

Arg Ser Arg Arg Ile Leu Tyr Trp Ile Tyr Arg Phe Leu Cys Leu Ala

35					40					45					
Ser	His	Gly	Val	Cys	Val	Gly	Val	Met	Val	Phe	Arg	Met	Val	Glu	Ala
50						55					60				
Lys	Thr	Ile	Asp	Asn	Val	Ser	Leu	Ile	Met	Arg	Tyr	Ala	Thr	Leu	Val
65					70					75					80
Thr	Tyr	Ile	Ile	Asn	Ser	Asp	Thr	Lys	Phe	Ala	Thr	Val	Leu	Gln	Arg
				85					90					95	
Ser	Ala	Ile	Gln	Ser	Leu	Asn	Ser	Lys	Leu	Ala	Glu	Leu	Tyr	Pro	Lys
			100					105						110	
Thr	Thr	Leu	Asp	Arg	Ile	Tyr	His	Arg	Val	Asn	Asp	His	Tyr	Trp	Thr
		115					120					125			
Lys	Ser	Phe	Val	Tyr	Leu	Val	Ile	Ile	Tyr	Ile	Gly	Ser	Ser	Ile	Met
	130					135					140				
Val	Val	Ile	Gly	Pro	Ile	Ile	Thr	Ser	Ile	Ile	Ala	Tyr	Phe	Thr	His
145					150					155					160
Asn	Val	Phe	Thr	Tyr	Met	His	Cys	Tyr	Pro	Tyr	Phe	Leu	Tyr	Asp	Pro
				165					170					175	
Glu	Lys	Asp	Pro	Val	Trp	Ile	Tyr	Ile	Ser	Ile	Tyr	Ala	Leu	Glu	Trp
			180					185						190	
Leu	His	Ser	Thr	Gln	Met	Val	Ile	Ser	Asn	Ile	Gly	Ala	Asp	Ile	Trp
		195					200					205			
Leu	Leu	Tyr	Phe	Gln	Val	Gln	Ile	Asn	Leu	His	Phe	Arg	Gly	Ile	Ile
	210					215						220			
Arg	Ser	Leu	Ala	Asp	His	Lys	Pro	Ser	Val	Lys	His	Asp	Gln	Glu	Asp
225					230					235					240
Arg	Lys	Phe	Ile	Ala	Lys	Ile	Val	Asp	Lys	Gln	Val	His	Leu	Val	Ser
				245					250					255	
Leu	Gln	Asn	Asp	Leu	Asn	Gly	Ile	Phe	Gly	Lys	Ser	Leu	Leu	Leu	Ser
			260					265					270		
Leu	Leu	Thr	Thr	Ala	Ala	Val	Ile	Cys	Thr	Val	Ala	Val	Tyr	Thr	Leu
		275					280					285			
Ile	Gln	Gly	Pro	Thr	Leu	Glu	Gly	Phe	Thr	Tyr	Val	Ile	Phe	Ile	Gly
	290					295					300				
Thr	Ser	Val	Met	Gln	Val	Tyr	Leu	Val	Cys	Tyr	Tyr	Gly	Gln	Gln	Val
305					310					315					320
Leu	Asp	Leu	Ser	Gly	Glu	Val	Ala	His	Ala	Val	Tyr	Asn	His	Asp	Phe
				325					330					335	

His Asp Ala Ser Ile Ala Tyr Lys Arg Tyr Leu Leu Ile Ile Ile Ile  
340 345 350

Arg Ala Gln Gln Pro Val Glu Leu Asn Ala Met Gly Tyr Leu Ser Ile  
355 360 365

Ser Leu Asp Thr Phe Lys Gln Leu Met Ser Val Ser Tyr Arg Val Ile  
370 375 380

Thr Met Leu Met Gln Met Ile Gln  
385 390

<210> 71  
<211> 795  
<212> DNA  
<213> Drosophila Melanogaster DOR38

<400> 71  
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aatggttctt ggccattaac cgaatcatcg aggccatgga ggagccaatc cttattggcc 120  
accgcctaca tcgtgtgggc gtggtacgtc attgcatctg tgggcataac aatcagctat 180  
cagacggcct ttttgctgaa caacctttcg gacattatta tcaccacgga aaattgttgc 240  
accaccttta tgggtgtcct gaactttgtc cgactcatcc atcttcgcct caatcagagg 300  
aaattccgcc agcttattga gaacttttcc tacgaaattt ggatacctaa ttcttccaaa 360  
aacaatgttg ccgccgagtg tcgcagacgc atgggttacct tcagcataat gacatccttg 420  
ctagcgtgcc tgatcataat gtattgtgtc ctgccgctgg tggagatctt ctttggaccc 480  
gccttcgatg cacagaacaa gccgtttccc tacaagatga tctttccgta cgatgccag 540  
agcagttgga tccgatatgt gatgacctac atcttcacct cctacgcggg aatctgtgtg 600  
gtcaccacct tgtttgcaga ggacaccatt cttggcttct tcataaccta cacttgtggc 660  
caatttcatt tgctacacca acgaatcgca ggtttatttg cgggttccaa tgcggaattg 720  
gccgagagca ttcagctgga gcgactcaaa cgtattgtgg aaaaacacaa caatattatc 780  
agcgcaaatt ctgta 795

<210> 72  
<211> 265  
<212> PRT  
<213> Drosophila Melanogaster DOR38

<400> 72

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 Trp Leu Lys Leu Asn Gly Ser Trp Pro Leu Thr Glu Ser Ser Arg Pro  
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 Trp Arg Ser Gln Ser Leu Leu Ala Thr Ala Tyr Ile Val Trp Ala Trp  
 35 40 45  
 Tyr Val Ile Ala Ser Val Gly Ile Thr Ile Ser Tyr Gln Thr Ala Phe  
 50 55 60  
 Leu Leu Asn Asn Leu Ser Asp Ile Ile Ile Thr Thr Glu Asn Cys Cys  
 65 70 75 80  
 Thr Thr Phe Met Gly Val Leu Asn Phe Val Arg Leu Ile His Leu Arg  
 85 90 95  
 Leu Asn Gln Arg Lys Phe Arg Gln Leu Ile Glu Asn Phe Ser Tyr Glu  
 100 105 110  
 Ile Trp Ile Pro Asn Ser Ser Lys Asn Asn Val Ala Ala Glu Cys Arg  
 115 120 125  
 Arg Arg Met Val Thr Phe Ser Ile Met Thr Ser Leu Leu Ala Cys Leu  
 130 135 140  
 Ile Ile Met Tyr Cys Val Leu Pro Leu Val Glu Ile Phe Phe Gly Pro  
 145 150 155 160  
 Ala Phe Asp Ala Gln Asn Lys Pro Phe Pro Tyr Lys Met Ile Phe Pro  
 165 170 175  
 Tyr Asp Ala Gln Ser Ser Trp Ile Arg Tyr Val Met Thr Tyr Ile Phe  
 180 185 190  
 Thr Ser Tyr Ala Gly Ile Cys Val Val Thr Thr Leu Phe Ala Glu Asp  
 195 200 205  
 Thr Ile Leu Gly Phe Phe Ile Thr Tyr Thr Cys Gly Gln Phe His Leu  
 210 215 220  
 Leu His Gln Arg Ile Ala Gly Leu Phe Ala Gly Ser Asn Ala Glu Leu  
 225 230 235 240  
 Ala Glu Ser Ile Gln Leu Glu Arg Leu Lys Arg Ile Val Glu Lys His  
 245 250 255  
 Asn Asn Ile Ile Ser Ala Asn Ser Val  
 260 265

<210> 73  
 <211> 1409  
 <212> DNA  
 <213> Drosophila Melanogaster DOR48

<400> 73  
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tacggctggt atgcagaggc ttactatggc atacactata taccgattaa catagccact 180  
gcattggatg ccccttgtcc tgtggcctcc agcattttgt cgctggtgaa aatggtcgcc 240  
atgtgggtgt atcaagatga attaaggagt ttgatagagc gggtaagatt tttaacagag 300  
caacagaagt ccaagaggaa actgggctat aagaagaggt tctatacact ggcaacgcaa 360  
ctaacattcc tgctactatg ctgtggattt tgcaccagta cttcctattc cgtcagacat 420  
ttgattgata atatcctgag acgcacccat ggcaaggact ggatctacga gactccgttc 480  
aagatgatgt aaggaaaggg aagaatgggt tatatatact tttggaacga aataatgatg 540  
tgatctaaac aagatgcaact tttttttagg ttccccgac ttctcctgcg tttgccactc 600  
tatcccatca cctatatact cgtgcattgg catggctaca ttactgtgggt ttgttttgtc 660  
ggcgcggtat gtttcttctt ggggttctgt ttgtacttca ctgttttget gctctgtctg 720  
caggacgatg tttgtgattt actagaggtt gaaaacatcg agaagagtc ctccgaagcg 780  
gaggaagctc gcatagtctg ggaaatggaa aaactgggtg accggcataa cgaggtggcc 840  
gagctgacag aaagattgtc ggggtgttatg gtggaaataa cactggccca ctttgttact 900  
tcgagtttga taatcggaac cagcgtgggt gatattttat tagtgggtat ttacatttga 960  
ttagatcctt tcgatatatg ttcttaaatt ctagttttcc ggcttgggaa tcattgtgta 1020  
tgtgggtctac acttgtgccg taggtgtgga aatatttcta tactgttttag gaggatctca 1080  
tattatggaa gcggtatatt cataagaaac tactataaag ttacttttaa attcattgca 1140  
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aaattccttt cttttcccca tcattagaga ctctaacttc ggtaagctta tgcgaaaatg 1320  
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ctctgattgc cctggcaaag tcggttata 1409

<210> 74  
<211> 369  
<212> PRT  
<213> Drosophila Melanogaster DOR48

<400> 74

Met	Glu	Arg	His	Tyr	Phe	Met	Val	Pro	Lys	Phe	Ala	Leu	Ser	Leu	Ile	1	5	10	15
Gly	Phe	Tyr	Pro	Glu	Gln	Lys	Arg	Thr	Val	Leu	Val	Lys	Leu	Trp	Ser	20	25	30	
Phe	Phe	Asn	Phe	Phe	Ile	Leu	Thr	Tyr	Gly	Cys	Tyr	Ala	Glu	Ala	Tyr	35	40	45	
Tyr	Gly	Ile	His	Tyr	Ile	Pro	Ile	Asn	Ile	Ala	Thr	Ala	Leu	Asp	Ala	50	55	60	
Leu	Cys	Pro	Val	Ala	Ser	Ser	Ile	Leu	Ser	Leu	Val	Lys	Met	Val	Ala	65	70	75	80
Ile	Trp	Trp	Tyr	Gln	Asp	Glu	Leu	Arg	Ser	Leu	Ile	Glu	Arg	Arg	Phe	85	90	95	
Tyr	Thr	Leu	Ala	Thr	Gln	Leu	Thr	Phe	Leu	Leu	Leu	Cys	Cys	Gly	Phe	100	105	110	
Cys	Thr	Ser	Thr	Ser	Tyr	Ser	Val	Arg	His	Leu	Ile	Asp	Asn	Ile	Leu	115	120	125	
Arg	Arg	Thr	His	Gly	Lys	Asp	Trp	Ile	Tyr	Glu	Thr	Pro	Phe	Lys	Met	130	135	140	
Met	Phe	Pro	Asp	Leu	Leu	Leu	Arg	Leu	Pro	Leu	Tyr	Pro	Ile	Thr	Tyr	145	150	155	160
Ile	Leu	Val	His	Trp	His	Gly	Tyr	Ile	Thr	Val	Val	Cys	Phe	Val	Gly	165	170	175	
Ala	Asp	Gly	Phe	Phe	Leu	Gly	Phe	Cys	Leu	Tyr	Phe	Thr	Val	Leu	Leu	180	185	190	
Leu	Cys	Leu	Gln	Asp	Asp	Val	Cys	Asp	Leu	Leu	Glu	Val	Glu	Asn	Ile	195	200	205	
Glu	Lys	Ser	Pro	Ser	Glu	Ala	Glu	Glu	Ala	Arg	Ile	Val	Arg	Glu	Met	210	215	220	
Glu	Lys	Leu	Val	Asp	Arg	His	Asn	Glu	Val	Ala	Glu	Leu	Thr	Glu	Arg	225	230	235	240
Leu	Ser	Gly	Val	Met	Val	Glu	Ile	Thr	Leu	Ala	His	Phe	Val	Thr	Ser	245	250	255	
Ser	Leu	Ile	Ile	Gly	Thr	Ser	Val	Val	Asp	Ile	Leu	Leu	Phe	Ser	Gly	260	265	270	
Leu	Gly	Ile	Ile	Val	Tyr	Val	Val	Tyr	Thr	Cys	Ala	Val	Gly	Val	Glu				

275					280					285					
Ile	Phe	Leu	Tyr	Cys	Leu	Gly	Gly	Ser	His	Ile	Met	Glu	Ala	Cys	Ser
290					295					300					
Asn	Leu	Ala	Arg	Ser	Thr	Phe	Ser	Ser	His	Trp	Tyr	Gly	His	Ser	Val
305					310					315					320
Arg	Val	Gln	Lys	Met	Thr	Leu	Leu	Met	Val	Ala	Arg	Ala	Gln	Arg	Val
				325					330					335	
Leu	Thr	Ile	Lys	Ile	Pro	Phe	Phe	Ser	Pro	Ser	Leu	Glu	Thr	Leu	Thr
			340					345					350		
Ser	Ile	Leu	Arg	Phe	Thr	Gly	Ser	Leu	Ile	Ala	Leu	Ala	Lys	Ser	Val
	355					360					365				

Ile

<210> 75  
 <211> 891  
 <212> DNA  
 <213> Drosophila Melanogaster DOR56

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 tgtactcagt atgtggatat atatctgagc accgaatcct tggactttat catcagaaat 180  
 gtataacctg ctgtattggt taccaacacg gtggtcagag gtgtattggt atgcgtacag 240  
 cggtttagct acgagcgttt cattaatatt ttgaaaagct ttacattga gttgttggtg 300  
 agtaccgaaa gattatctca aaaatgcata ttgcataaat gggcagttct gccatatggc 360  
 atgtatttgc ccaactattga tgaatacaaa tacgcatac cttactacga gattttcttt 420  
 gtgattcaag ccattatggc tccaatgggg tgttgcatgt acataccata cacaacatg 480  
 gtagtgacat ttaccctttt cgccattctc atgtgtcgag tgttgcaaca taagttgaga 540  
 agcctagaaa agctgaaaaa tgaacaagta cgtggtgaaa tcgctcaaac aattgctcag 600  
 accgtcatag tcatcgcata catggtaatg atatttgcca acagtgtagt cttttactac 660  
 gtggccaatg agctatactt tcaaagcttt gatattgcca ttgctgccta tgagagcaat 720  
 tggatggact ttgatgtgga cacacaaaag actttgaagt tcctcatcat gcgctcgcaa 780  
 aagcccttgg cgagtctggt ggggtggcaca tatcccatga acttgaaaat gcttcagtca 840  
 ctactaaatg ccatttactc cttcttcacc cttctgcgtc gcgtttacgg c 891

<210> 76  
 <211> 297  
 <212> PRT  
 <213> Drosophila Melanogaster DOR56

<400> 76

Met	Asp	Pro	Val	Glu	Met	Pro	Ile	Phe	Gly	Ser	Thr	Leu	Lys	Leu	Met
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Lys	Phe	Trp	Ser	Tyr	Leu	Phe	Val	His	Asn	Trp	Arg	Arg	Tyr	Val	Ala
			20					25					30		
Met	Thr	Pro	Tyr	Ile	Ile	Ile	Asn	Cys	Thr	Gln	Tyr	Val	Asp	Ile	Tyr
		35					40					45			
Leu	Ser	Thr	Glu	Ser	Leu	Asp	Phe	Ile	Ile	Arg	Asn	Val	Tyr	Leu	Ala
	50					55					60				
Val	Leu	Phe	Thr	Asn	Thr	Val	Val	Arg	Gly	Val	Leu	Leu	Cys	Val	Gln
65					70				75						80
Arg	Phe	Ser	Tyr	Glu	Arg	Phe	Ile	Asn	Ile	Leu	Lys	Ser	Phe	Tyr	Ile
				85					90					95	
Glu	Leu	Leu	Val	Ser	Thr	Glu	Arg	Leu	Ser	Gln	Lys	Cys	Ile	Leu	His
			100					105					110		
Lys	Trp	Ala	Val	Leu	Pro	Tyr	Gly	Met	Tyr	Leu	Pro	Thr	Ile	Asp	Glu
		115					120					125			
Tyr	Lys	Tyr	Ala	Ser	Pro	Tyr	Tyr	Glu	Ile	Phe	Phe	Val	Ile	Gln	Ala
	130					135					140				
Ile	Met	Ala	Pro	Met	Gly	Cys	Cys	Met	Tyr	Ile	Pro	Tyr	Thr	Asn	Met
145					150					155					160
Val	Val	Thr	Phe	Thr	Leu	Phe	Ala	Ile	Leu	Met	Cys	Arg	Val	Leu	Gln
				165					170					175	
His	Lys	Leu	Arg	Ser	Leu	Glu	Lys	Leu	Lys	Asn	Glu	Gln	Val	Arg	Gly
			180					185					190		
Glu	Ile	Ala	Gln	Thr	Ile	Ala	Gln	Thr	Val	Ile	Val	Ile	Ala	Tyr	Met
		195					200					205			
Val	Met	Ile	Phe	Ala	Asn	Ser	Val	Val	Leu	Tyr	Tyr	Val	Ala	Asn	Glu
	210					215					220				
Leu	Tyr	Phe	Gln	Ser	Phe	Asp	Ile	Ala	Ile	Ala	Ala	Tyr	Glu	Ser	Asn
225					230					235					240
Trp	Met	Asp	Phe	Asp	Val	Asp	Thr	Gln	Lys	Thr	Leu	Lys	Phe	Leu	Ile



	245		250		255
Met Arg Ser Gln Lys Pro Leu Ala Ser Leu Val Gly Gly Thr Tyr Pro					
	260		265		270
Met Asn Leu Lys Met Leu Gln Ser Leu Leu Asn Ala Ile Tyr Ser Phe					
	275		280		285
Phe Thr Leu Leu Arg Arg Val Tyr Gly					
	290		295		

<210> 77  
 <211> 1134  
 <212> DNA  
 <213> Drosophila Melanogaster DOR58

<400> 77  
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 atctctcaca actggcccat ggtagtctat gccctgcagg atctctccga cttgaccctg 180  
 ctgacggaca actttgcggt gtttatgcaa ggatcacaga gcaccttcaa gttcctggtc 240  
 atgatggcga aacgaaggcg cattggatcg ttgattcacc gtttgcataa gctaaaccag 300  
 gcggccagtg ccacgcccac tcacctggag aagatcgaga gggaaaacca actggatagg 360  
 tatgtcgcca ggtcctttag aaatgccgcc tacggagtga tttgtgcctc ggccatagcg 420  
 cccatgttgc ttggcctgtg gggatatgtg gagacgggtg tatttaccac caccacaccc 480  
 atggagttca acttctggct ggacgagcga aagcctcact tttattggcc catctacgtt 540  
 tggggcgctac tgggcgtggc agctgccgcc tgggtggcca ttgcaacgga caccctgttc 600  
 tcttggtga ctcacaatgt ggtgattcag ttccaactac tggagcttgt tctcgaagag 660  
 aaggatctga atggcggaga ctctgcctg accgggtttg ttagtcgtca tcgtatagct 720  
 ctggatttgg ccaaggaact aagttcgatt ttcggggaga tcgtctttgt gaaatacatg 780  
 ctcatgtacc tgcaactctg catgttggcc tttcgcttca gccgcagtgg ctggagtgcc 840  
 caggtgccat ttagagccac cttcctagt gcatcatca tccaactgag ttcgtattgc 900  
 tatggaggcg agtatataaa gcagcaaagt ttggccatcg cacaagccgt ttatgggtcaa 960  
 atcaattggc cagaaatgac gccaaagaaa agaagactct ggcaaattgg gatcatgagg 1020  
 gcgcagcgac cggctaagat ttttggattc atgttcgttg tggacttgcc actgctgctt 1080  
 tgggtcatca gaactgcggg ctcatttctg gccatgctta ggactttcga gcgt 1134



Val Lys Tyr Met Leu Ser Tyr Leu Gln Leu Cys Met Leu Ala Phe Arg  
260 265 270

Phe Ser Arg Ser Gly Trp Ser Ala Gln Val Pro Phe Arg Ala Thr Phe  
275 280 285

Leu Val Ala Ile Ile Ile Gln Leu Ser Ser Tyr Cys Tyr Gly Gly Glu  
290 295 300

Tyr Ile Lys Gln Gln Ser Leu Ala Ile Ala Gln Ala Val Tyr Gly Gln  
305 310 315 320

Ile Asn Trp Pro Glu Met Thr Pro Lys Lys Arg Arg Leu Trp Gln Met  
325 330 335

Val Ile Met Arg Ala Gln Arg Pro Ala Lys Ile Phe Gly Phe Met Phe  
340 345 350

Val Val Asp Leu Pro Leu Leu Leu Trp Val Ile Arg Thr Ala Gly Ser  
355 360 365

Phe Leu Ala Met Leu Arg Thr Phe Glu Arg  
370 375

<210> 79

<211> 807

<212> DNA

<213> Drosophila Melanogaster DOR59

<400> 79

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accattaccc tgttgatctg gataccatcg gttattgctg gcctaattggc ctattcagac	120
tgcattctaca ggagtctgtt tctgccgaaa tcggttttca atgtgccagc tgtgcgacgt	180
ggtgaggagc atcccattct gctatttcag ctgtttccct tcggagaact ttgcgataac	240
ttcgttggtg gatacttggg accttggtat gctctggggc tgggaatcac ggctatccca	300
ttgtggcaca cttttatcac ttgcctcatg aagtacgtaa atctcaagct gcaaatactc	360
aacaagcgag tggaggagat ggatattacc cgacttaatt ccaaattggt aattggtcgc	420
ctaactgcc a gtgagttaac cttctggcaa atgcaactct tcaaggaatt tgtaaaggaa	480
cagctgagga ttcgaaaatt tgtccaggaa ctacagtatc tgatttgctg gcctgtgatg	540
gcagatttca ttatcttctc ggttctcatt tgctttctct tttttgcctt gacagttggc	600
cacgatgaac tgagccttgc ttacttttct tgcggatggg acaacttcga aatgcctttg	660
cagaaaatgc tggtttttat gatgatgcat gcccaaaggc cgatgaagat gcgcgccttg	720

ctgggtcgatt tgaatctgag gaccttcata gacattggcc gtggagccta cagctacttc 780  
aatttgctgc gtagctccca cttgtat 807

<210> 80  
<211> 269  
<212> PRT  
<213> Drosophila Melanogaster DOR59

<400> 80

Met	His	Glu	Ala	Asp	Asn	Arg	Glu	Met	Glu	Leu	Leu	Val	Ala	Thr	Gln
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Ala	Tyr	Thr	Arg	Thr	Ile	Thr	Leu	Leu	Ile	Trp	Ile	Pro	Ser	Val	Ile
			20				25						30		
Ala	Gly	Leu	Met	Ala	Tyr	Ser	Asp	Cys	Ile	Tyr	Arg	Ser	Leu	Phe	Leu
	35						40					45			
Pro	Lys	Ser	Val	Phe	Asn	Val	Pro	Ala	Val	Arg	Arg	Gly	Glu	Glu	His
	50				55					60					
Pro	Ile	Leu	Leu	Phe	Gln	Leu	Phe	Pro	Phe	Gly	Glu	Leu	Cys	Asp	Asn
65					70					75					80
Phe	Val	Val	Gly	Tyr	Leu	Gly	Pro	Trp	Tyr	Ala	Leu	Gly	Leu	Gly	Ile
			85					90						95	
Thr	Ala	Ile	Pro	Leu	Trp	His	Thr	Phe	Ile	Thr	Cys	Leu	Met	Lys	Tyr
			100					105					110		
Val	Asn	Leu	Lys	Leu	Gln	Ile	Leu	Asn	Lys	Arg	Val	Glu	Glu	Met	Asp
	115						120					125			
Ile	Thr	Arg	Leu	Asn	Ser	Lys	Leu	Val	Ile	Gly	Arg	Leu	Thr	Ala	Ser
	130					135					140				
Glu	Leu	Thr	Phe	Trp	Gln	Met	Gln	Leu	Phe	Lys	Glu	Phe	Val	Lys	Glu
145					150					155					160
Gln	Leu	Arg	Ile	Arg	Lys	Phe	Val	Gln	Glu	Leu	Gln	Tyr	Leu	Ile	Cys
			165					170						175	
Val	Pro	Val	Met	Ala	Asp	Phe	Ile	Ile	Phe	Ser	Val	Leu	Ile	Cys	Phe
			180					185					190		
Leu	Phe	Phe	Ala	Leu	Thr	Val	Gly	His	Asp	Glu	Leu	Ser	Leu	Ala	Tyr
	195						200					205			
Phe	Ser	Cys	Gly	Trp	Tyr	Asn	Phe	Glu	Met	Pro	Leu	Gln	Lys	Met	Leu
	210					215					220				
Val	Phe	Met	Met	Met	His	Ala	Gln	Arg	Pro	Met	Lys	Met	Arg	Ala	Leu

225		230		235		240
Leu Val Asp	Leu Asn Leu Arg Thr Phe Ile Asp	Ile Gly Arg Gly Ala				
	245	250	255			
Tyr Ser Tyr	Phe Asn Leu Leu Arg Ser Ser His	Leu Tyr				
	260	265				

<210> 81  
 <211> 1143  
 <212> DNA  
 <213> Drosophila Melanogaster DOR68

<400> 81  
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 tattgtatta tgtgtctgac aacaagcttt gagctctgca ccgtgtgcgc ctttatggtc 180  
 caaaatcgca accaaatcgt gctttgttcc gaggcctga tgcacggact acagatggtc 240  
 tcctcgctac tgaagatggc tatattcttg gccaaatctc acgacctggg ggacctaat 300  
 caacagattc agtcgccttt tacagaggag gatctttag gtacagagtg gagatcccaa 360  
 aatcaaaggg gacaactaat ggctgccatt tactttatga tgtgtgccgg tacgagtgtg 420  
 tcattttctgt tgatgccagt ggctttgacc atgcttaagt accattccac tggggaattc 480  
 gcgcctgtca gctcgttccg ggttctgctt ccatacgatg tgacacaacc gcatgtttat 540  
 gccatggact gctgcttgat ggtatttgtg ttaagttttt tttgctgctc caccaccgga 600  
 gtggatacct tatatggatg gtgtgcttta ggcgtaggtt tacaataccg tcgcctcggt 660  
 caacaactta aaaggatacc ctctgtttc aatccatctc ggtctgactt tggattaagt 720  
 gggatttttg tggagcatgc tcgtctgctt aaaatagtc aacattttta ttatagtttt 780  
 atggagatcg catttgtgga ggttggtata atctgtggac tctattgctc agtaatttgt 840  
 cagtatataa tgccacacac caaccaaacc ttgcctttc tgggtttctt ttcattggta 900  
 gttaccacac agctgtgcat ctatcttttc ggtgccgaac aggtccggtt ggaggctgag 960  
 cgattttccc ggctgtata cgaagtaatt ccttggcaaa accttcctcc taaacaccgg 1020  
 aaacttttcc tttttccaat tgagcgcgcc caacgagaaa ctgttctcgg tgcttatttc 1080  
 ttogaactag gcagacctct tcttgtttgg gtaagcatat tcctttttat tgtattatta 1140  
 ttt 1143

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<210> 82
<211> 381
<212> PRT
<213> Drosophila Melanogaster DOR68

<400> 82

Met Ser Lys Leu Ile Glu Val Phe Leu Gly Asn Leu Trp Thr Gln Arg
1          5          10          15

Phe Thr Phe Ala Arg Met Gly Leu Asp Leu Gln Pro Asp Lys Lys Gly
20          25          30

Asn Val Leu Arg Ser Pro Leu Leu Tyr Cys Ile Met Cys Leu Thr Thr
35          40          45

Ser Phe Glu Leu Cys Thr Val Cys Ala Phe Met Val Gln Asn Arg Asn
50          55          60

Gln Ile Val Leu Cys Ser Glu Ala Leu Met His Gly Leu Gln Met Val
65          70          75          80

Ser Ser Leu Leu Lys Met Ala Ile Phe Leu Ala Lys Ser His Asp Leu
85          90          95

Val Asp Leu Ile Gln Gln Ile Gln Ser Pro Phe Thr Glu Glu Asp Leu
100         105         110

Val Gly Thr Glu Trp Arg Ser Gln Asn Gln Arg Gly Gln Leu Met Ala
115         120         125

Ala Ile Tyr Phe Met Met Cys Ala Gly Thr Ser Val Ser Phe Leu Leu
130         135         140

Met Pro Val Ala Leu Thr Met Leu Lys Tyr His Ser Thr Gly Glu Phe
145         150         155         160

Ala Pro Val Ser Ser Phe Arg Val Leu Leu Pro Tyr Asp Val Thr Gln
165         170         175

Pro His Val Tyr Ala Met Asp Cys Cys Leu Met Val Phe Val Leu Ser
180         185         190

Phe Phe Cys Cys Ser Thr Thr Gly Val Asp Thr Leu Tyr Gly Trp Cys
195         200         205

Ala Leu Gly Val Ser Leu Gln Tyr Arg Arg Leu Gly Gln Gln Leu Lys
210         215         220

Arg Ile Pro Ser Cys Phe Asn Pro Ser Arg Ser Asp Phe Gly Leu Ser
225         230         235         240

Gly Ile Phe Val Glu His Ala Arg Leu Leu Lys Ile Val Gln His Phe
245         250         255

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Asn Tyr Ser Phe Met Glu Ile Ala Phe Val Glu Val Val Ile Ile Cys  
 260 265 270  
 Gly Leu Tyr Cys Ser Val Ile Cys Gln Tyr Ile Met Pro His Thr Asn  
 275 280 285  
 Gln Asn Phe Ala Phe Leu Gly Phe Phe Ser Leu Val Val Thr Thr Gln  
 290 295 300  
 Leu Cys Ile Tyr Leu Phe Gly Ala Glu Gln Val Arg Leu Glu Ala Glu  
 305 310 315 320  
 Arg Phe Ser Arg Leu Leu Tyr Glu Val Ile Pro Trp Gln Asn Leu Pro  
 325 330 335  
 Pro Lys His Arg Lys Leu Phe Leu Phe Pro Ile Glu Arg Ala Gln Arg  
 340 345 350  
 Glu Thr Val Leu Gly Ala Tyr Phe Phe Glu Leu Gly Arg Pro Leu Leu  
 355 360 365  
 Val Trp Val Ser Ile Phe Leu Phe Ile Val Leu Leu Phe  
 370 375 380

<210> 83  
 <211> 927  
 <212> DNA  
 <213> Drosophila Melanogaster DOR77

<400> 83  
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 catcgatcca cgaatccctt aaaatcgctt ctcttcaaga tctatctata tgcgggattc 120  
 ataaatttta atctgttggt aatcggtgaa ctggtgttct tctacaactc aattcaggac 180  
 tttgaaacca ttcgattggc catcgcggtg gctccatgta tcggattttc tctggttgct 240  
 gatttttaaac aagctgccat gattagaggc aagaaaacac taattatgct actcgatgat 300  
 ttggagaaca tgcattccgaa aaccctggca aagcaaattg aatacaaatt gccggacttt 360  
 gaaaagacca tgaaacgtgt gatcaatata ttcacctttc tctgcttggc ctatacgact 420  
 acgtttctct tttatccggc catcaaggca tccgtgaaat ttaatttctt gggctacgac 480  
 acctttgatc gaaatttttg tttctctatc tggtttccct tcgatgcaac aaggaataat 540  
 ttgatatact ggatcatgta ctgggacata gcccatgggg cctatctagc ggcctttcag 600  
 gtcaccgaat caacagtggg agtgattatt atttactgca tttttttgat gacctcgatg 660  
 gttcagggtat ttatggtgtg ctactatggg gatactttaa ttgccgag cttgaaagtg 720  
 ggcgatgccg cttacaacca aaagtgtgtt cagtgcagca aatcctattg caccatgttg 780

aagttgctaa tcatgaggag tcagaaacca gcttcaataa gaccgcccac ttttcccccc 840  
 atatccttgg ttacctatat gaagaatccc ttcaacaatc tacccaaaca cagctcttcc 900  
 ctgcaaatca acgccaatcg ctatatc 927

<210> 84  
 <211> 309  
 <212> PRT  
 <213> Drosophila Melanogaster DOR77

<400> 84

Met Glu Leu Met Arg Val Pro Val Gln Phe Tyr Arg Thr Ile Gly Glu  
 1 5 10 15  
 Asp Ile Tyr Ala His Arg Ser Thr Asn Pro Leu Lys Ser Leu Leu Phe  
 20 25 30  
 Lys Ile Tyr Leu Tyr Ala Gly Phe Ile Asn Phe Asn Leu Leu Val Ile  
 35 40 45  
 Gly Glu Leu Val Phe Phe Tyr Asn Ser Ile Gln Asp Phe Glu Thr Ile  
 50 55 60  
 Arg Leu Ala Ile Ala Val Ala Pro Cys Ile Gly Phe Ser Leu Val Ala  
 65 70 75 80  
 Asp Phe Lys Gln Ala Ala Met Ile Arg Gly Lys Lys Thr Leu Ile Met  
 85 90 95  
 Leu Leu Asp Asp Leu Glu Asn Met His Pro Lys Thr Leu Ala Lys Gln  
 100 105 110  
 Met Glu Tyr Lys Leu Pro Asp Phe Glu Lys Thr Met Lys Arg Val Ile  
 115 120 125  
 Asn Ile Phe Thr Phe Leu Cys Leu Ala Tyr Thr Thr Thr Phe Ser Phe  
 130 135 140  
 Tyr Pro Ala Ile Lys Ala Ser Val Lys Phe Asn Phe Leu Gly Tyr Asp  
 145 150 155 160  
 Thr Phe Asp Arg Asn Phe Gly Phe Leu Ile Trp Phe Pro Phe Asp Ala  
 165 170 175  
 Thr Arg Asn Asn Leu Ile Tyr Trp Ile Met Tyr Trp Asp Ile Ala His  
 180 185 190  
 Gly Ala Tyr Leu Ala Ala Phe Gln Val Thr Glu Ser Thr Val Glu Val  
 195 200 205  
 Ile Ile Ile Tyr Cys Ile Phe Leu Met Thr Ser Met Val Gln Val Phe



210	215	220
Met Val Cys Tyr Tyr Gly Asp Thr Leu Ile Ala Ala Ser Leu Lys Val		
225	230	235 240
Gly Asp Ala Ala Tyr Asn Gln Lys Trp Phe Gln Cys Ser Lys Ser Tyr		
	245	250 255
Cys Thr Met Leu Lys Leu Leu Ile Met Arg Ser Gln Lys Pro Ala Ser		
	260	265 270
Ile Arg Pro Pro Thr Phe Pro Pro Ile Ser Leu Val Thr Tyr Met Lys		
	275	280 285
Asn Pro Phe Asn Asn Leu Pro Lys His Ser Ser Ser Leu Gln Ile Asn		
	290	295 300
Ala Asn Arg Tyr Ile		
305		

<210> 85  
 <211> 1152  
 <212> DNA  
 <213> Drosophila Melanogaster DOR78

<400> 85	
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attgactcgc ggtccaaaaa agcgagccta tggtcacatc ttctcttctg ggccaatgtg	120
atcaatttaa gtgtcattgt tttcggagag atcctctatc tgggagtggc ctattccgat	180
ggaaagtcca ttgatgccgt cactgtactg tcatatateg gattcgtaat cgtgggcatg	240
agcaagatgt tcttcatatg gtggaagaag accgatctaa gcgatttggt taaggaattg	300
gagcacatct atccaaatgg caaagctgag gaggagatgt atcggttgga taggtatctg	360
cgatcttggt cacgaattag cattacctat gcactactct actccgtact catctggacc	420
ttcaatctgt tcagtatcat gcaattcctt gtctatgaaa agttgcttaa aatccgagtg	480
gtcggccaaa cgctgccata tttgatgtac tttccctgga actggcatga aaactggacg	540
tattatgtgc tgctgttctg tcaaaacttc gcaggacata cttcggcatc gggacagatc	600
tctacggatc ttttgctttg tgctgttgct acccaggtgg taatgcactt cgattacttg	660
gccagagtgg tggaaaaaca agtgttagat cgcgattgga gcgaaaactc cagatttttg	720
gcaaaaactg tacaatatca tcagcgcatt cttcggctaa tggacgttct caacgatata	780
ttcgggatac cgctactgct taactttatg gtctccacat ttgtcatctg ctttgtggga	840
ttccaaatga cgtgggtgt cccgccggac atcatgatta agctcttctt gttcctgttc	900

tcgtccttgt cgcaagtgtg cttgatatgc cactacggcc agctgattgc cgatgcggta 960  
agagactttc gaagctctag cttatcgatt tctgcatata agcagaattg gcaaaatgct 1020  
gacattcgct atcgtcgggc tctggtatcc tttatagctc gacctcagag gacaacttat 1080  
ctaaaagcta caattttcat gaatataaca agggccacca tgacggacgt aagatacaat 1140  
ttgaaatgtc at 1152

<210> 86  
<211> 384  
<212> PRT  
<213> Drosophila Melanogaster DOR78

<400> 86

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Glu	Pro	Tyr	Thr	Ile	Asp	Ser	Arg	Ser	Lys	Lys	Ala	Ser	Leu	Trp	Ser	
			20					25					30			
His	Leu	Leu	Phe	Trp	Ala	Asn	Val	Ile	Asn	Leu	Ser	Val	Ile	Val	Phe	
	35					40					45					
Gly	Glu	Ile	Leu	Tyr	Leu	Gly	Val	Ala	Tyr	Ser	Asp	Gly	Lys	Phe	Ile	
	50				55					60						
Asp	Ala	Val	Thr	Val	Leu	Ser	Tyr	Ile	Gly	Phe	Val	Ile	Val	Gly	Met	
65				70					75					80		
Ser	Lys	Met	Phe	Phe	Ile	Trp	Trp	Lys	Lys	Thr	Asp	Leu	Ser	Asp	Leu	
			85					90					95			
Val	Lys	Glu	Leu	Glu	His	Ile	Tyr	Pro	Asn	Gly	Lys	Ala	Glu	Glu	Glu	
		100					105					110				
Met	Tyr	Arg	Leu	Asp	Arg	Tyr	Leu	Arg	Ser	Cys	Ser	Arg	Ile	Ser	Ile	
	115					120					125					
Thr	Tyr	Ala	Leu	Leu	Tyr	Ser	Val	Leu	Ile	Trp	Thr	Phe	Asn	Leu	Phe	
	130				135					140						
Ser	Ile	Met	Gln	Phe	Leu	Val	Tyr	Glu	Lys	Leu	Leu	Lys	Ile	Arg	Val	
145				150					155					160		
Val	Gly	Gln	Thr	Leu	Pro	Tyr	Leu	Met	Tyr	Phe	Pro	Trp	Asn	Trp	His	
			165				170						175			
Glu	Asn	Trp	Thr	Tyr	Tyr	Val	Leu	Leu	Phe	Cys	Gln	Asn	Phe	Ala	Gly	
	180						185						190			

His Thr Ser Ala Ser Gly Gln Ile Ser Thr Asp Leu Leu Leu Cys Ala  
 195 200 205  
 Val Ala Thr Gln Val Val Met His Phe Asp Tyr Leu Ala Arg Val Val  
 210 215 220  
 Glu Lys Gln Val Leu Asp Arg Asp Trp Ser Glu Asn Ser Arg Phe Leu  
 225 230 235 240  
 Ala Lys Thr Val Gln Tyr His Gln Arg Ile Leu Arg Leu Met Asp Val  
 245 250 255  
 Leu Asn Asp Ile Phe Gly Ile Pro Leu Leu Leu Asn Phe Met Val Ser  
 260 265 270  
 Thr Phe Val Ile Cys Phe Val Gly Phe Gln Met Thr Val Gly Val Pro  
 275 280 285  
 Pro Asp Ile Met Ile Lys Leu Phe Leu Phe Leu Phe Ser Ser Leu Ser  
 290 295 300  
 Gln Val Tyr Leu Ile Cys His Tyr Gly Gln Leu Ile Ala Asp Ala Val  
 305 310 315 320  
 Arg Asp Phe Arg Ser Ser Ser Leu Ser Ile Ser Ala Tyr Lys Gln Asn  
 325 330 335  
 Trp Gln Asn Ala Asp Ile Arg Tyr Arg Arg Ala Leu Val Phe Phe Ile  
 340 345 350  
 Ala Arg Pro Gln Arg Thr Thr Tyr Leu Lys Ala Thr Ile Phe Met Asn  
 355 360 365  
 Ile Thr Arg Ala Thr Met Thr Asp Val Arg Tyr Asn Leu Lys Cys His  
 370 375 380

<210> 87

<211> 1203

<212> DNA

<213> *Drosophila Melanogaster* DOR81

<400> 87

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atcaactatg tgatacatct ggcggagttc ccgccggagc tgctgctgca atccctgcaa	180
ctgtgcctca acacttggtg cttcgctctg aagttcttca ctctgatcgt ctatacgcac	240
cgcttgagc tggccaacaa gcactttgac gaattggata agtactgcgt gaagccggcg	300
gagaagcgca aggttcgca catggtggcc actattacaa gactgtacct gaccttcgtc	360
gtgggtctacg tcctctacgc cacctccacg ctactggacg gactactgca ccaccgtgtt	420

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ccctacaata cgtactatcc gttcataaac tggcgagtcg atcggacca gatgtacatc 480
cagagttttc tggagtactt caccgtgggt tatgccatat atgtggccac cgccaccgat 540
tcctaccctg tgatttacgt ggcagccctg cgaactcata ttctcttgct caaggaccgt 600
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tcgttggtgg attgtatcaa ggcacacaga accatgctaa agtgcagttt ttgtgatgcc 720
attcaaccaa tcatctctgg cacgatattt gcccaattca tcatatgcgg atcgatcctg 780
ggcataatta tgatcaacat ggtattgttc gctgatcaat cgacccgatt cggcatagtc 840
atctacgtta tggccgtcct tctgcagact tttccgcttt gcttctactg caacgccatc 900
gtggacgact gcaaagaact ggcccacgca cttttccatt ccgcctgggtg ggtgcaggac 960
aagcgatacc agcggactgt catccagttc ctgcagaaac tgcagcagcc catgaccttc 1020
accgccatga acatatttaa cattaatttg gccactaaca tcaatgtaag tccactgctc 1080
tcggttagaa cggggaagga agcaaagtcc gaacttcaat ccttgcaggt agccaagttc 1140
gccttcaccg tgtacgccat cgcgagcggg atgaacctgg accaaaagtt aagcattaag 1200
gaa 1203

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<210> 88
<211> 399
<212> PRT
<213> Drosophila Melanogaster DOR81

<400> 88

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Met Met Glu Thr Leu Arg Asn Ser Gly Leu Asn Leu Lys Asn Asp Phe
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Gly Ile Gly Arg Lys Ile Trp Arg Val Phe Ser Phe Thr Tyr Asn Met
          20          25          30
Val Ile Leu Pro Val Ser Phe Pro Ile Asn Tyr Val Ile His Leu Ala
          35          40          45
Glu Phe Pro Pro Glu Leu Leu Leu Gln Ser Leu Gln Leu Cys Leu Asn
          50          55          60
Thr Trp Cys Phe Ala Leu Lys Phe Phe Thr Leu Ile Val Tyr Thr His
65          70          75          80
Arg Leu Glu Leu Ala Asn Lys His Phe Asp Glu Leu Asp Lys Tyr Cys
          85          90          95

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Val Lys Pro Ala Glu Lys Arg Lys Val Arg Asp Met Val Ala Thr Ile  
 100 105 110  
 Thr Arg Leu Tyr Leu Thr Phe Val Val Val Tyr Val Leu Tyr Ala Thr  
 115 120 125  
 Ser Thr Leu Leu Asp Gly Leu Leu His His Arg Val Pro Tyr Asn Thr  
 130 135 140  
 Tyr Tyr Pro Phe Ile Asn Trp Arg Val Asp Arg Thr Gln Met Tyr Ile  
 145 150 155 160  
 Gln Ser Phe Leu Glu Tyr Phe Thr Val Gly Tyr Ala Ile Tyr Val Ala  
 165 170 175  
 Thr Ala Thr Asp Ser Tyr Pro Val Ile Tyr Val Ala Ala Leu Arg Thr  
 180 185 190  
 His Ile Leu Leu Leu Lys Asp Arg Ile Ile Tyr Leu Gly Asp Pro Ser  
 195 200 205  
 Asn Glu Gly Ser Ser Asp Pro Ser Tyr Met Phe Lys Ser Leu Val Asp  
 210 215 220  
 Cys Ile Lys Ala His Arg Thr Met Leu Asn Phe Cys Asp Ala Ile Gln  
 225 230 235 240  
 Pro Ile Ile Ser Gly Thr Ile Phe Ala Gln Phe Ile Ile Cys Gly Ser  
 245 250 255  
 Ile Leu Gly Ile Ile Met Ile Asn Met Val Leu Phe Ala Asp Gln Ser  
 260 265 270  
 Thr Arg Phe Gly Ile Val Ile Tyr Val Met Ala Val Leu Leu Gln Thr  
 275 280 285  
 Phe Pro Leu Cys Phe Tyr Cys Asn Ala Ile Val Asp Asp Cys Lys Glu  
 290 295 300  
 Leu Ala His Ala Leu Phe His Ser Ala Trp Trp Val Gln Asp Lys Arg  
 305 310 315 320  
 Tyr Gln Arg Thr Val Ile Gln Phe Leu Gln Lys Leu Gln Gln Pro Met  
 325 330 335  
 Thr Phe Thr Ala Met Asn Ile Phe Asn Ile Asn Leu Ala Thr Asn Ile  
 340 345 350  
 Asn Val Ser Pro Leu Leu Ser Val Arg Thr Gly Lys Glu Ala Lys Ser  
 355 360 365  
 Glu Leu Gln Ser Leu Gln Val Ala Lys Phe Ala Phe Thr Val Tyr Ala  
 370 375 380  
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385

390

395

&lt;210&gt; 89

&lt;211&gt; 1179

&lt;212&gt; DNA

<213> *Drosophila Melanogaster* DOR82

&lt;400&gt; 89

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&lt;210&gt; 90

&lt;211&gt; 393

&lt;212&gt; PRT

<213> *Drosophila Melanogaster* DOR82

&lt;400&gt; 90

Met	Ala	Cys	Ile	Pro	Arg	Tyr	Gln	Trp	Lys	Gly	Arg	Pro	Thr	Glu	Arg	1	5	10	15
Gln	Phe	Tyr	Ala	Ser	Glu	Gln	Arg	Ile	Val	Phe	Leu	Leu	Gly	Thr	Ile	20	25	30	
Cys	Gln	Ile	Phe	Gln	Ile	Thr	Gly	Val	Leu	Ile	Tyr	Trp	Tyr	Cys	Asn	35	40	45	
Gly	Arg	Leu	Ala	Thr	Glu	Thr	Gly	Thr	Phe	Val	Ala	Gln	Leu	Ser	Glu	50	55	60	
Met	Cys	Ser	Ser	Phe	Cys	Leu	Thr	Phe	Val	Gly	Phe	Cys	Asn	Val	Tyr	65	70	75	80
Ala	Ile	Ser	Thr	Asn	Arg	Asn	Gln	Ile	Glu	Thr	Leu	Leu	Glu	Glu	Leu	85	90	95	
His	Gln	Ile	Tyr	Pro	Arg	Tyr	Arg	Lys	Asn	His	Tyr	Arg	Cys	Gln	His	100	105	110	
Tyr	Phe	Asp	Met	Ala	Met	Thr	Ile	Met	Arg	Ile	Glu	Phe	Leu	Phe	Tyr	115	120	125	
Met	Ile	Leu	Tyr	Val	Tyr	Tyr	Asn	Ser	Ala	Pro	Leu	Trp	Val	Leu	Leu	130	135	140	
Trp	Glu	His	Leu	His	Glu	Glu	Tyr	Asp	Leu	Ser	Phe	Lys	Thr	Gln	Thr	145	150	155	160
Asn	Thr	Trp	Phe	Pro	Trp	Lys	Val	His	Gly	Ser	Ala	Leu	Gly	Phe	Gly	165	170	175	
Met	Ala	Val	Leu	Ser	Ile	Thr	Val	Gly	Ser	Phe	Val	Gly	Val	Gly	Phe	180	185	190	
Ser	Ile	Val	Thr	Gln	Asn	Leu	Ile	Cys	Leu	Leu	Thr	Phe	Gln	Leu	Lys	195	200	205	
Leu	His	Tyr	Asp	Gly	Ile	Ser	Ser	Gln	Leu	Val	Ser	Leu	Asp	Cys	Arg	210	215	220	
Arg	Pro	Gly	Ala	His	Lys	Glu	Leu	Ser	Ile	Leu	Ile	Ala	His	His	Ser	225	230	235	240
Arg	Ile	Leu	Gln	Leu	Gly	Asp	Gln	Val	Asn	Asp	Ile	Met	Asn	Phe	Val	245	250	255	
Phe	Gly	Ser	Ser	Leu	Val	Gly	Ala	Thr	Ile	Ala	Ile	Cys	Met	Ser	Ser	260	265	270	
Val	Ser	Ile	Met	Leu	Leu	Asp	Leu	Ala	Ser	Ala	Phe	Lys	Tyr	Ala	Ser	275	280	285	

Gly Leu Val Ala Phe Val Leu Tyr Asn Phe Val Ile Cys Tyr Met Gly  
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 Thr Glu Val Thr Leu Ala Val Lys Ile Gly Ser Tyr Met Asp Gly Arg  
 305 310 315 320  
 Arg Trp Ile Pro Lys Asp Ser Leu Leu Arg Ser Gln Arg Leu Gln Val  
 325 330 335  
 Leu Val Ala Val Gly Phe Phe Asn Ile Cys Val Leu Ser Asn Arg Arg  
 340 345 350  
 Pro Lys Ile Glu Ile Leu Leu Arg Tyr Tyr Tyr His Ile Met Phe Tyr  
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<210> 91  
 <211> 1209  
 <212> DNA  
 <213> Drosophila Melanogaster DOR83

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 gccagcatgc ttggtttcac cattgtgggc accctcaact tgtggaagat gctgagcctt 300  
 aagaccatt ttgagaacct actaaatgaa ttcgaggaat tatttcaact aatcaagcac 360  
 agggcgatc gcatacaca ctatcaagaa aagtatacgc gtcataatcg aaatacattt 420  
 attttccata cctctgccgt tgtctactac aactcactac caattcttct aatgattcgg 480  
 gaacatttct cgaactcaca gcagttgggc tatagaattc agagtaatac ctggtatccc 540  
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 tgccaaacca atatgtgcgt caatatgttt atccagtttc tgatcaactt ttttggtatc 660  
 cagctagaaa tacacttcca tgggttggcc aggcagctgg agaccatcga tgcccgcaat 720  
 ccccatgcc aaggatcaatt gaagtatctg attgtatatc acacaaaatt gcttaatcta 780  
 gccgacagag ttaatcgatc gtttaacttt acgtttctca taagtctgtc ggtatccatg 840



atatccaact gttttctggc attttccatg accatgttcg actttggcac ctctctaaaa 900  
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 gcacgaata 1209

<210> 92  
 <211> 403  
 <212> PRT  
 <213> *Drosophila Melanogaster* DOR83  
 <400> 92

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Lys	Arg	Asn	Leu	Ala	Lys	Arg	Ile	Ile	Phe	Trp	Leu	Gly	Ala	Val	Asn	35	40	45	
Leu	Val	Tyr	His	Asn	Ile	Gly	Cys	Val	Met	Tyr	Gly	Tyr	Phe	Gly	Asp	50	55	60	
Gly	Arg	Thr	Lys	Asp	Pro	Ile	Ala	Tyr	Leu	Ala	Glu	Leu	Ala	Ser	Val	65	70	75	80
Ala	Ser	Met	Leu	Gly	Phe	Thr	Ile	Val	Gly	Thr	Leu	Asn	Leu	Trp	Lys	85	90	95	
Met	Leu	Ser	Leu	Lys	Thr	His	Phe	Glu	Asn	Leu	Leu	Asn	Glu	Phe	Glu	100	105	110	
Glu	Leu	Phe	Gln	Leu	Ile	Lys	His	Arg	Ala	Tyr	Arg	Ile	His	His	Tyr	115	120	125	
Gln	Glu	Lys	Tyr	Thr	Arg	His	Ile	Arg	Asn	Thr	Phe	Ile	Phe	His	Thr	130	135	140	
Ser	Ala	Val	Val	Tyr	Tyr	Asn	Ser	Leu	Pro	Ile	Leu	Leu	Met	Ile	Arg	145	150	155	160
Glu	His	Phe	Ser	Asn	Ser	Gln	Gln	Leu	Gly	Tyr	Arg	Ile	Gln	Ser	Asn	165	170	175	

Thr Trp Tyr Pro Trp Gln Val Gln Gly Ser Ile Pro Gly Phe Phe Ala  
 180 185 190  
 Ala Val Ala Cys Gln Ile Phe Ser Cys Gln Thr Asn Met Cys Val Asn  
 195 200 205  
 Met Phe Ile Gln Phe Leu Ile Asn Phe Phe Gly Ile Gln Leu Glu Ile  
 210 215 220  
 His Phe Asp Gly Leu Ala Arg Gln Leu Glu Thr Ile Asp Ala Arg Asn  
 225 230 235 240  
 Pro His Ala Lys Asp Gln Leu Lys Tyr Leu Ile Val Tyr His Thr Lys  
 245 250 255  
 Leu Leu Asn Leu Ala Asp Arg Val Asn Arg Ser Phe Asn Phe Thr Phe  
 260 265 270  
 Leu Ile Ser Leu Ser Val Ser Met Ile Ser Asn Cys Phe Leu Ala Phe  
 275 280 285  
 Ser Met Thr Met Phe Asp Phe Gly Thr Ser Leu Lys His Leu Leu Gly  
 290 295 300  
 Leu Leu Leu Phe Ile Thr Tyr Asn Phe Ser Met Cys Arg Ser Gly Thr  
 305 310 315 320  
 His Leu Ile Leu Thr Ser Gly Lys Val Leu Pro Ala Ala Phe Tyr Asn  
 325 330 335  
 Asn Trp Tyr Glu Gly Asp Leu Val Tyr Arg Arg Met Leu Leu Ile Leu  
 340 345 350  
 Met Met Arg Ala Thr Lys Pro Tyr Met Trp Lys Thr Tyr Lys Leu Ala  
 355 360 365  
 Pro Val Ser Ile Thr Thr Tyr Met Ala Glu Cys Lys Thr Lys Glu Ala  
 370 375 380  
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 385 390 395 400

Ala Arg Ile

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 <211> 858  
 <212> DNA  
 <213> Drosophila Melanogaster DOR84  
  
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aagataggtg ctgtaatgaa aaaaaagcca aaaatgacag ctttggtcag gcaattggag 180  
acctgctttc cgtcgccaag tgcaaagggtt caagaggaat atgctgtgaa gtcctggctg 240  
aaacgctgcc atatatacac aaagggattt ggtgggtctct tcatgatcat gtatttcgct 300  
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gccaagcaga ttatgccgtt ttaccaactc gaaccttggg aatttcgcga ctcctgggtg 420  
ttttatccaa gctattttca ccagtcgtcg gccggatata cggctacatg tggatccatt 480  
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gtctgcctgg tgggagttca attaaccatc gctttaagtc cagagtattt ttgcaagcag 780  
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<210> 94  
<211> 286  
<212> PRT  
<213> Drosophila Melanogaster DOR84

<400> 94

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Arg	Asp	Asn	Glu	Asn	Phe	Leu	Glu	Ser	Cys	Ile	Leu	Leu	Ser	Tyr	Val
		20						25					30		
Ser	Phe	Val	Val	Met	Gly	Leu	Ser	Lys	Ile	Gly	Ala	Val	Met	Lys	Lys
		35					40					45			
Lys	Pro	Lys	Met	Thr	Ala	Leu	Val	Arg	Gln	Leu	Glu	Thr	Cys	Phe	Pro
	50					55					60				
Ser	Pro	Ser	Ala	Lys	Val	Gln	Glu	Glu	Tyr	Ala	Val	Lys	Ser	Trp	Leu
65				70					75					80	
Lys	Arg	Cys	His	Ile	Tyr	Thr	Lys	Gly	Phe	Gly	Gly	Leu	Phe	Met	Ile
			85					90						95	
Met	Tyr	Phe	Ala	His	Ala	Leu	Ile	Pro	Leu	Phe	Ile	Tyr	Phe	Ile	Gln
			100					105					110		

Arg Val Leu Leu His Tyr Pro Asp Ala Lys Gln Ile Met Pro Phe Tyr  
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 Gln Leu Glu Pro Trp Glu Phe Arg Asp Ser Trp Leu Phe Tyr Pro Ser  
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 Tyr Phe His Gln Ser Ser Ala Gly Tyr Thr Ala Thr Cys Gly Ser Ile  
 145 150 155 160  
 Ala Gly Asp Leu Met Ile Phe Ala Val Val Leu Gln Val Ile Met His  
 165 170 175  
 Tyr Glu Arg Leu Ala Lys Val Leu Arg Glu Phe Lys Ile Gln Ala His  
 180 185 190  
 Asn Ala Pro Asn Gly Ala Lys Glu Asp Ile Arg Lys Leu Gln Ser Leu  
 195 200 205  
 Val Ala Asn His Ile Asp Ile Leu Arg Leu Thr Asp Leu Met Asn Glu  
 210 215 220  
 Val Phe Gly Ile Pro Leu Leu Asn Phe Ile Ala Ser Ala Leu Leu  
 225 230 235 240  
 Val Cys Leu Val Gly Val Gln Leu Thr Ile Ala Leu Ser Pro Glu Tyr  
 245 250 255  
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 275 280 285

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 <211> 1155  
 <212> DNA  
 <213> Drosophila Melanogaster DOR91

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 cgatatctgg acaagggttct agctggttgc atgtccttgg tttttatgca acacaacgat 180  
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 cacttcgaga agcttcagaa gtttttagaa atattctacg caaatattta tattgatccc 360  
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 tcggccatgt acggtgcagt tatctctctg tatctaatac caccggtttt ttccatcatt 480

aaccaaagca aagattttct atactctatg atctttccgt tcgattcgga tcccttgtag 540  
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<211> 385  
<212> PRT  
<213> *Drosophila Melanogaster* DOR91

<400> 96

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			20					25					30		
Asp	Pro	Ser	Thr	Gly	Lys	Trp	Gly	Arg	Tyr	Leu	Asp	Lys	Val	Leu	Ala
		35					40					45			
Val	Ala	Met	Ser	Leu	Val	Phe	Met	Gln	His	Asn	Asp	Ala	Glu	Leu	Arg
	50					55					60				
Tyr	Leu	Arg	Phe	Glu	Ala	Ser	Asn	Arg	Asn	Leu	Asp	Ala	Phe	Leu	Thr
65				70					75					80	
Gly	Met	Pro	Thr	Tyr	Leu	Ile	Leu	Val	Glu	Ala	Gln	Phe	Arg	Ser	Leu
			85					90						95	
His	Ile	Leu	Leu	His	Phe	Glu	Lys	Leu	Gln	Lys	Phe	Leu	Glu	Ile	Phe
			100					105					110		
Tyr	Ala	Asn	Ile	Tyr	Ile	Asp	Pro	Arg	Lys	Glu	Pro	Glu	Met	Phe	Arg
		115					120					125			

Lys Val Asp Gly Lys Met Ile Ile Asn Arg Leu Val Ser Ala Met Tyr  
 130 135 140  
 Gly Ala Val Ile Ser Leu Tyr Leu Ile Ala Pro Val Phe Ser Ile Ile  
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 Asn Gln Ser Lys Asp Phe Leu Tyr Ser Met Ile Phe Pro Phe Asp Ser  
 165 170 175  
 Asp Pro Leu Tyr Ile Phe Val Pro Leu Leu Leu Thr Asn Val Trp Val  
 180 185 190  
 Gly Ile Val Ile Asp Thr Met Met Phe Gly Glu Thr Asn Leu Leu Cys  
 195 200 205  
 Glu Leu Ile Val His Leu Asn Gly Ser Tyr Met Leu Leu Lys Arg Asp  
 210 215 220  
 Leu Gln Leu Ala Ile Glu Lys Ile Leu Val Ala Arg Asp Arg Pro His  
 225 230 235 240  
 Met Ala Lys Gln Leu Lys Val Leu Ile Thr Lys Thr Leu Arg Lys Asn  
 245 250 255  
 Val Ala Leu Asn Gln Phe Gly Gln Gln Leu Glu Ala Gln Tyr Thr Val  
 260 265 270  
 Arg Val Phe Ile Met Phe Ala Phe Ala Ala Gly Leu Leu Cys Ala Leu  
 275 280 285  
 Ser Phe Lys Ala Tyr Thr Thr Asp Ser Leu Ser Thr Met Tyr Tyr Leu  
 290 295 300  
 Thr His Trp Glu Gln Ile Leu Gln Tyr Ser Thr Asn Pro Ser Glu Asn  
 305 310 315 320  
 Leu Arg Leu Leu Lys Leu Ile Asn Leu Ala Ile Glu Met Asn Ser Lys  
 325 330 335  
 Pro Phe Tyr Val Thr Gly Leu Lys Tyr Phe Arg Val Ser Leu Gln Ala  
 340 345 350  
 Gly Leu Lys Arg Gln Lys Phe Leu Arg Ser Ala Ser Ser Ser Thr Leu  
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 Ser Thr Ala Asp Val Leu Ala Phe Ala Phe Ala Phe Thr Arg Trp Leu  
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Leu  
 385

<210> 97  
 <211> 1218  
 <212> DNA

<213> Drosophila Melanogaster DOR92

<400> 97

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ccctggagat ccctgattca cttcgcaatc ctggccattg gcgtggccac cgaactgcat      180
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<210> 98

<211> 406

<212> PRT

<213> Drosophila Melanogaster DOR92

<400> 98

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Pro Gly Lys Thr Gly Asp Thr Trp Pro Trp Arg Ser Leu Ile His Phe  
35 40 45  
Ala Ile Leu Ala Ile Gly Val Ala Thr Glu Leu His Ala Gly Met Cys  
50 55 60  
Phe Leu Asp Arg Gln Gln Ile Thr Leu Ala Leu Glu Thr Leu Cys Pro  
65 70 75 80  
Ala Gly Thr Ser Ala Val Thr Leu Leu Lys Met Phe Leu Met Leu Arg  
85 90 95  
Phe Arg Gln Asp Leu Ser Ile Met Trp Asn Arg Leu Arg Gly Leu Leu  
100 105 110  
Phe Asp Pro Asn Trp Glu Arg Pro Glu Gln Arg Asp Ile Arg Leu Lys  
115 120 125  
His Ser Ala Met Ala Ala Arg Ile Asn Phe Trp Pro Leu Ser Ala Gly  
130 135 140  
Phe Phe Thr Cys Thr Thr Tyr Asn Leu Lys Pro Ile Leu Ile Ala Met  
145 150 155 160  
Ile Leu Tyr Leu Gln Asn Arg Tyr Glu Asp Phe Val Trp Phe Thr Pro  
165 170 175  
Phe Asn Met Thr Met Pro Lys Val Leu Leu Asn Tyr Pro Phe Phe Pro  
180 185 190  
Leu Thr Tyr Ile Phe Ile Ala Tyr Thr Gly Tyr Val Thr Ile Phe Met  
195 200 205  
Phe Gly Gly Cys Asp Gly Phe Tyr Phe Glu Phe Cys Ala His Leu Ser  
210 215 220  
Ala Leu Phe Glu Val Leu Gln Ala Glu Ile Glu Ser Met Phe Arg Pro  
225 230 235 240  
Tyr Thr Asp His Leu Glu Leu Ser Pro Val Gln Leu Tyr Ile Leu Glu  
245 250 255  
Gln Lys Met Arg Ser Val Ile Ile Arg His Asn Ala Ile Ile Asp Leu  
260 265 270  
Thr Arg Phe Phe Arg Asp Arg Tyr Thr Ile Ile Thr Leu Ala His Phe  
275 280 285  
Val Ser Ala Ala Met Val Ile Gly Phe Ser Met Val Asn Leu Leu Thr  
290 295 300



Leu Gly Asn Asn Gly Leu Gly Ala Met Leu Tyr Val Ala Tyr Thr Val  
 305 310 315 320  
 Ala Ala Leu Ser Gln Leu Leu Val Tyr Cys Tyr Gly Gly Thr Leu Val  
 325 330 335  
 Ala Glu Ser Ser Thr Gly Leu Cys Arg Ala Met Phe Ser Cys Pro Trp  
 340 345 350  
 Gln Leu Phe Lys Pro Lys Gln Arg Arg Leu Val Gln Leu Leu Ile Leu  
 355 360 365  
 Arg Ser Gln Arg Pro Val Ser Met Ala Val Pro Phe Phe Ser Pro Ser  
 370 375 380  
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 385 390 395 400  
 Leu Val Lys Ser Phe Gln  
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<210> 99  
 <211> 1176  
 <212> DNA  
 <213> Drosophila Melanogaster DOR95

<400> 99  
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 attctcgttt atcgctgcat gggcatcgat ttgtggagcc ccacgatggc gaatgaccgc 120  
 ccgtggctga cctttgtcac aatgggacca cttttcctgt ttatgggtgcc catgttcctg 180  
 gccgcccacg agtacatcac ccaggtgagc ctgctctccg acaccctggg ctccaccttc 240  
 gccagcatgc tcaccctggg caaattcctg ctcttctgct atcatcgcaa ggagtctgctc 300  
 ggccctgatct accacatcag ggccattctg gctaaagaaa tcgaagtgtg gcctgatgcy 360  
 cgggaaatca tcgaggtgga gaaccaaagt gaccaaatgc tcagtcttac gtacactcgc 420  
 tgttttggac tggctggaat ctttgcggcc ctgaagccct ttgtgggcat catactctcc 480  
 togattcgcg gcgacgagat tcacctggag ctgccccaca acggcgttta cccgtacgat 540  
 ctccaggtgg tcatgtttta tgtgcccacc tatctgtgga atgtgatggc cagctatagt 600  
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 gccattttca agatcgccaa gcaccggatg atccatctgc cggcggtggg cggaaaggag 720  
 gagctggagg ggctcgcca ggtgctgctg ctgcaccaga agggcctcca gatcgccgat 780  
 cacattgcgg acaagtaccg gccgctgata tttttgcagt tctttctgct cgccttgacg 840

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 atcgccctttg tgggctcgct gctcatcgca ctgttcatct actcgaagtg cggcgaaaat 960  
 atcaagagtg ccagcctgga ttccggaaac gggctgtacg agaccaactg gaccgacttc 1020  
 tegccaccca ctaaaagagc cctcctcatt gccgccatgc gcgcccagcg accttgccag 1080  
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 <211> 392  
 <212> PRT  
 <213> Drosophila Melanogaster DOR95

<400> 100

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Leu	Arg	Val	Gln	Ile	Leu	Val	Tyr	Arg	Cys	Met	Gly	Ile	Asp	Leu	Trp	20	25	30	
Ser	Pro	Thr	Met	Ala	Asn	Asp	Arg	Pro	Trp	Leu	Thr	Phe	Val	Thr	Met	35	40	45	
Gly	Pro	Leu	Phe	Leu	Phe	Met	Val	Pro	Met	Phe	Leu	Ala	Ala	His	Glu	50	55	60	
Tyr	Ile	Thr	Gln	Val	Ser	Leu	Leu	Ser	Asp	Thr	Leu	Gly	Ser	Thr	Phe	65	70	75	80
Ala	Ser	Met	Leu	Thr	Leu	Val	Lys	Phe	Leu	Leu	Phe	Cys	Tyr	His	Arg	85	90	95	
Lys	Glu	Phe	Val	Gly	Leu	Ile	Tyr	His	Ile	Arg	Ala	Ile	Leu	Ala	Lys	100	105	110	
Glu	Ile	Glu	Val	Trp	Pro	Asp	Ala	Arg	Glu	Ile	Ile	Glu	Val	Glu	Asn	115	120	125	
Gln	Ser	Asp	Gln	Met	Leu	Ser	Leu	Thr	Tyr	Thr	Arg	Cys	Phe	Gly	Leu	130	135	140	
Ala	Gly	Ile	Phe	Ala	Ala	Leu	Lys	Pro	Phe	Val	Gly	Ile	Ile	Leu	Ser	145	150	155	160
Ser	Ile	Arg	Gly	Asp	Glu	Ile	His	Leu	Glu	Leu	Pro	His	Asn	Gly	Val	165	170	175	
Tyr	Pro	Tyr	Asp	Leu	Gln	Val	Val	Met	Phe	Tyr	Val	Pro	Thr	Tyr	Leu	180	185	190	

Trp Asn Val Met Ala Ser Tyr Ser Ala Val Thr Met Ala Leu Cys Val  
 195 200 205  
 Asp Ser Leu Leu Phe Phe Phe Thr Tyr Asn Val Cys Ala Ile Phe Lys  
 210 215 220  
 Ile Ala Lys His Arg Met Ile His Leu Pro Ala Val Gly Gly Lys Glu  
 225 230 235 240  
 Glu Leu Glu Gly Leu Val Gln Val Leu Leu Leu His Gln Lys Gly Leu  
 245 250 255  
 Gln Ile Ala Asp His Ile Ala Asp Lys Tyr Arg Pro Leu Ile Phe Leu  
 260 265 270  
 Gln Phe Phe Leu Ser Ala Leu Gln Ile Cys Phe Ile Gly Phe Gln Val  
 275 280 285  
 Ala Asp Leu Phe Pro Asn Pro Gln Ser Leu Tyr Phe Ile Ala Phe Val  
 290 295 300  
 Gly Ser Leu Leu Ile Ala Leu Phe Ile Tyr Ser Lys Cys Gly Glu Asn  
 305 310 315 320  
 Ile Lys Ser Ala Ser Leu Asp Phe Gly Asn Gly Leu Tyr Glu Thr Asn  
 325 330 335  
 Trp Thr Asp Phe Ser Pro Pro Thr Lys Arg Ala Leu Leu Ile Ala Ala  
 340 345 350  
 Met Arg Ala Gln Arg Pro Cys Gln Met Lys Gly Tyr Phe Phe Glu Ala  
 355 360 365  
 Ser Met Ala Thr Phe Ser Thr Ile Val Arg Ser Ala Val Ser Tyr Ile  
 370 375 380  
 Met Met Leu Arg Ser Phe Asn Ala  
 385 390

<210> 101  
 <211> 1170  
 <212> DNA  
 <213> Drosophila Melanogaster DOR99

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 tggcggagaa atccggtgga caacagcatg gtgaacgcat ccatgggtccc cttctgcttg 120  
 tcggcggtttc ttaatgtcct gtttttcggc tgcaatgggt gggacatcat aggacatttt 180  
 tggctgggac atcctgccaa ccagaatccg cccgtgctta gcatcaccat ttacttctcg 240  
 atcaggggat tgatgctata cctgaaacga aaggaaatcg ttgagtttgt taacgacttg 300

gatcgggagt gtccgcggga cttgggtcagc cagttggaca tgcaaattgga tgagacgtac 360  
cgaaactttt ggcagcgcta tcgcttcac cgtatctact cccatttggg tgggccgatg 420  
ttctgcgttg tgccattagc tctattcctc ctgaccacg agggtaaaga tactcctggt 480  
gcccagcacg agcagctcct tggaggatgg ctgccatgcg gtgtgcgaaa ggacccaaat 540  
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gttaccttcg acaacctatt caatgtgatg cagggacatt tggatcatgca tttgggccat 660  
cttgctcgcc agttttcggc catcgatcct cgacagagtt tgaccgatga gaagcgattc 720  
tttgtggatc ttaggttatt agttcagagg cagcagcttc ttaatggatt gtgcagaaaa 780  
tacaacgaca tcttttaaagt ggccttcctg gtgagcaatt ttgtaggcgc cggttccctc 840  
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<210> 102

<211> 390

<212> PRT

<213> Drosophila Melanogaster DOR99

<400> 102

Met	Glu	Glu	Phe	Leu	Arg	Pro	Gln	Met	Phe	Gln	Glu	Val	Ala	Gln	Met
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Val	His	Phe	Gln	Trp	Arg	Arg	Asn	Pro	Val	Asp	Asn	Ser	Met	Val	Asn
			20					25					30		
Ala	Ser	Met	Val	Pro	Phe	Cys	Leu	Ser	Ala	Phe	Leu	Asn	Val	Leu	Phe
		35					40					45			
Phe	Gly	Cys	Asn	Gly	Trp	Asp	Ile	Ile	Gly	His	Phe	Trp	Leu	Gly	His
	50					55					60				
Pro	Ala	Asn	Gln	Asn	Pro	Pro	Val	Leu	Ser	Ile	Thr	Ile	Tyr	Phe	Ser
65					70					75				80	
Ile	Arg	Gly	Leu	Met	Leu	Tyr	Leu	Lys	Arg	Lys	Glu	Ile	Val	Glu	Phe



Thr Phe Leu Lys Ser His  
385 390

<210> 103  
<211> 1917  
<212> DNA  
<213> Drosophila Melanogaster DORA45

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gtaccagaca acaattacat ttgtatTTTT aaagttcaat agcaaggatg acaacctcga 180  
tgcagccgag caagtacacg ggccctggctg ccgacctgat gcccaacatc cgggcgatga 240  
agtactccgg cctgttcatg cacaacttca cgggcggcag tgccttcatg aagaagggtg 300  
actcctccgt gcacctgggtg ttccctcctca tgcagttcac ctccatcctg gtcaacatgg 360  
ccctgaacgc cgaggagggtc aacgagctgt cgggcaaacac gatcacgacc ctcttcttca 420  
cccactgcat cacgaagttt atctacctgg ctgttaacca gaagaatttc tacagaacat 480  
tgaatatatg gaaccagggtg aacacgcac ccttgttctg cgagtcggat gctcggttacc 540  
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cctcggccac cgccctggacc acgatcacct tctttggcga cagcgtaaaa atggtgggtg 660  
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acgtgctctt ctcgatgatc cactccaatc tatgcgacgt gatgttctgc tcttggttga 840  
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agtccttttg cgggaacggg ggccggaggca acgggttggg gaacggcgct aatcccaacg 1140  
ggctgaccaa aaagcaggag atgatggtgc gcagtgccat caagtactgg gtcgagcggc 1200  
acaagcacgt ggtgcgactg gtggctgcca tcggcgatac ttacggagcc gccctcctcc 1260  
tcacatgct gacctcgacc atcaagctga ccctgctggc ataccaggcc accaaaatca 1320  
acggagtga tgtctacgcc ttcacagtcg tcggatacct aggatacgcg ctggcccagg 1380

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<210> 104  
 <211> 486  
 <212> PRT  
 <213> Drosophila Melanogaster DORA45

<400> 104

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			20					25					30		
Asn	Phe	Thr	Gly	Gly	Ser	Ala	Phe	Met	Lys	Lys	Val	Tyr	Ser	Ser	Val
		35					40					45			
His	Leu	Val	Phe	Leu	Leu	Met	Gln	Phe	Thr	Phe	Ile	Leu	Val	Asn	Met
	50					55					60				
Ala	Leu	Asn	Ala	Glu	Glu	Val	Asn	Glu	Leu	Ser	Gly	Asn	Thr	Ile	Thr
65				70					75					80	
Thr	Leu	Phe	Phe	Thr	His	Cys	Ile	Thr	Lys	Phe	Ile	Tyr	Leu	Ala	Val
			85						90					95	
Asn	Gln	Lys	Asn	Phe	Tyr	Arg	Thr	Leu	Asn	Ile	Trp	Asn	Gln	Val	Asn
			100						105				110		
Thr	His	Pro	Leu	Phe	Ala	Glu	Ser	Asp	Ala	Arg	Tyr	His	Ser	Ile	Ala
		115					120					125			
Leu	Ala	Lys	Met	Arg	Lys	Leu	Phe	Phe	Leu	Val	Met	Leu	Thr	Thr	Val
	130					135					140				
Ala	Ser	Ala	Thr	Ala	Trp	Thr	Thr	Ile	Thr	Phe	Phe	Gly	Asp	Ser	Val

145		150		155		160
Lys Met Val Val	Asp His Glu Thr	Asn Ser Ser Ile	Pro Val Glu Ile			
	165	170	175			
Pro Arg Leu Pro	Ile Lys Ser Phe Tyr	Pro Trp Asn Ala	Ser His Gly			
	180	185	190			
Met Phe Tyr Met	Ile Ser Phe Ala Phe	Gln Ile Tyr Tyr	Val Leu Phe			
	195	200	205			
Ser Met Ile His	Ser Asn Leu Cys Asp	Val Met Phe Cys	Ser Trp Leu			
	210	215	220			
Ile Phe Ala Cys	Glu Gln Leu Gln His	Leu Lys Gly Ile	Met Lys Pro			
	225	230	235			240
Leu Met Glu Leu	Ser Ala Ser Leu Asp	Thr Tyr Arg Pro	Asn Ser Ala			
	245	250	255			
Ala Leu Phe Arg	Ser Leu Ser Ala Asn	Ser Lys Ser Glu	Leu Ile His			
	260	265	270			
Asn Glu Glu Lys	Asp Pro Gly Thr Asp	Met Asp Met Ser	Gly Ile Tyr			
	275	280	285			
Ser Ser Lys Ala	Asp Trp Gly Ala Gln	Phe Arg Ala Pro	Ser Thr Leu			
	290	295	300			
Gln Ser Phe Gly	Gly Asn Gly Gly Gly	Gly Asn Gly Leu	Val Asn Gly			
	305	310	315			320
Ala Asn Pro Asn	Gly Leu Thr Lys Lys	Gln Glu Met Met	Val Arg Ser			
	325	330	335			
Ala Ile Lys Tyr	Trp Val Glu Arg His	Lys His Val Val	Arg Leu Val			
	340	345	350			
Ala Ala Ile Gly	Asp Thr Tyr Gly Ala	Ala Leu Leu Leu	His Met Leu			
	355	360	365			
Thr Ser Thr Ile	Lys Leu Thr Leu Leu	Ala Tyr Gln Ala	Thr Lys Ile			
	370	375	380			
Asn Gly Val Asn	Val Tyr Ala Phe Thr	Val Val Gly Tyr	Leu Gly Tyr			
	385	390	395			400
Ala Leu Ala Gln	Val Phe His Phe Cys	Ile Phe Gly Asn	Arg Leu Ile			
	405	410	415			
Glu Glu Ser Ser	Ser Val Met Glu Ala	Ala Tyr Ser Cys	His Trp Tyr			
	420	425	430			
Asp Gly Ser Glu	Glu Ala Lys Thr Phe	Val Gln Ile Val	Cys Gln Gln			
	435	440	445			



Cys Gln Lys Ala Met Ser Ile Ser Gly Ala Lys Phe Phe Thr Val Ser  
 450 455 460

Leu Asp Leu Phe Ala Ser Val Leu Gly Ala Val Val Thr Tyr Phe Met  
 465 470 475 480

Val Leu Val Gln Leu Lys  
 485

<210> 105  
 <211> 1317  
 <212> DNA  
 <213> Drosophila melanogaster DOR44

<400> 105  
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 caaggcgatt tggacttctt cgtgaactgt ttgatacaaa ccattattta tctgtggaca 300  
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 aacatcaatg atgagtacga gacacgttcg gctgtgggat tcagtttcgt cacaatggcg 420  
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 tggatatcct ttgactatac acaaccgggt gtctatgagg tagtgttcct tctccaggcg 600  
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gatgttcgca gtgattacat gttctttatg ctgaattccc gcaggcagtt ccaacttacg 1260  
gccggaaaaa taagcaatct aaacgtggat cgtttcagag ggggtgggtat ccttact 1317

Met 1	Lys	Ser	Thr	Phe 5	Lys	Glu	Glu	Arg	Ile 10	Lys	Asp	Asp	Ser	Lys 15	Arg
Arg	Asp	Leu	Phe 20	Val	Phe	Val	Arg	Gln 25	Thr	Met	Cys	Ile	Ala 30	Ala	Met
Tyr	Pro	Phe 35	Gly	Tyr	Tyr	Val	Asn 40	Gly	Ser	Gly	Val	Leu 45	Ala	Val	Leu
Val	Arg 50	Phe	Cys	Asp	Leu	Thr 55	Tyr	Glu	Leu	Phe	Asn 60	Tyr	Phe	Val	Ser
Val 65	His	Ile	Ala	Gly	Leu 70	Tyr	Ile	Cys	Thr	Ile 75	Tyr	Ile	Asn	Tyr	Gly 80
Gln	Gly	Asp	Leu	Asp 85	Phe	Phe	Val	Asn 90	Cys	Leu	Ile	Gln	Thr 95	Ile	Ile
Tyr	Leu	Trp	Thr 100	Ile	Ala	Met	Lys	Leu 105	Tyr	Phe	Arg	Arg	Phe 110	Arg	Pro
Gly	Leu 115	Leu	Asn	Thr	Ile	Leu	Ser 120	Asn	Ile	Asn	Asp	Glu 125	Tyr	Glu	Thr
Arg 130	Ser	Ala	Val	Gly	Phe	Ser 135	Phe	Val	Thr	Met	Ala 140	Gly	Ser	Tyr	Arg
Met 145	Ser	Lys	Leu	Trp	Ile 150	Lys	Thr	Tyr	Val	Tyr 155	Cys	Cys	Tyr	Ile	Gly 160
Thr	Ile	Phe	Trp 165	Leu	Ala	Leu	Pro	Ile 170	Ala	Tyr	Arg	Asp	Arg	Ser 175	Leu
Pro	Leu	Ala	Cys 180	Trp	Tyr	Pro	Phe	Asp 185	Tyr	Thr	Gln	Pro	Gly 190	Val	Tyr
Glu	Val	Val 195	Phe	Leu	Leu	Gln	Ala 200	Met	Gly	Gln	Ile	Gln 205	Val	Ala	Ala
Ser	Phe 210	Ala	Ser	Ser	Ser	Gly 215	Leu	His	Met	Val	Leu 220	Cys	Val	Leu	Ile

Ser Gly Gln Tyr Asp Val Leu Phe Cys Ser Leu Lys Asn Val Leu Ala  
 225 230 235 240  
 Ser Ser Tyr Val Leu Met Gly Ala Asn Met Thr Glu Leu Asn Gln Leu  
 245 250 255  
 Gln Ala Glu Gln Ser Ala Ala Asp Val Glu Pro Gly Gln Tyr Ala Tyr  
 260 265 270  
 Ser Val Glu Glu Glu Thr Pro Leu Gln Glu Leu Leu Lys Val Gly Ser  
 275 280 285  
 Ser Met Asp Phe Ser Ser Ala Phe Arg Leu Ser Phe Val Arg Cys Ile  
 290 295 300  
 Gln His His Arg Tyr Ile Val Ala Ala Leu Lys Lys Ile Glu Ser Phe  
 305 310 315 320  
 Tyr Ser Pro Ile Trp Phe Val Lys Ile Gly Glu Val Thr Phe Leu Met  
 325 330 335  
 Cys Leu Val Ala Phe Val Ser Thr Lys Ser Thr Ala Ala Asn Ser Phe  
 340 345 350  
 Met Arg Met Val Ser Leu Gly Gln Tyr Leu Leu Leu Val Leu Tyr Glu  
 355 360 365  
 Leu Phe Ile Ile Cys Tyr Phe Ala Asp Ile Val Phe Gln Asn Ser Gln  
 370 375 380  
 Arg Cys Gly Glu Ala Leu Trp Arg Ser Pro Trp Gln Arg His Leu Lys  
 385 390 395 400  
 Asp Val Arg Ser Asp Tyr Met Phe Phe Met Leu Asn Ser Arg Arg Gln  
 405 410 415  
 Phe Gln Leu Thr Ala Gly Lys Ile Ser Asn Leu Asn Val Asp Arg Phe  
 420 425 430  
 Arg Gly Val Gly Ile Leu Thr  
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<210> 107  
 <211> 363  
 <212> PRT  
 <213> DROSOPHILA MELANOGASTER DOR61

<400> 107

Met Gly His Lys Asp Asp Met Asp Ser Thr Asp Ser Thr Ala Leu Ser  
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 35 40 45  
 Ala Cys Leu Ser Val Val Phe Thr Asn Met Leu Thr Val Ile Lys Ile  
 50 55 60  
 Ser Thr Phe Leu Ala Asn Arg Lys Asp Phe Trp Glu Met Ile His Arg  
 65 70 75 80  
 Phe Arg Lys Met His Glu Gln Cys Lys Tyr Arg Glu Gly Leu Asp Tyr  
 85 90 95  
 Val Ala Glu Ala Asn Lys Leu Ala Ser Phe Leu Gly Arg Ala Tyr Cys  
 100 105 110  
 Val Ser Cys Gly Leu Thr Gly Leu Tyr Phe Met Leu Gly Pro Ile Val  
 115 120 125  
 Lys Ile Gly Val Cys Arg Trp His Gly Thr Thr Cys Asp Lys Glu Leu  
 130 135 140  
 Pro Met Pro Met Lys Phe Pro Phe Asn Asp Leu Glu Ser Pro Gly Tyr  
 145 150 155 160  
 Glu Val Cys Phe Leu Tyr Thr Val Leu Val Thr Val Val Val Val Ala  
 165 170 175  
 Tyr Ala Ser Ala Val Asp Gly Leu Phe Ile Ser Phe Ala Ile Asn Leu  
 180 185 190  
 Arg Ala His Phe Gln Thr Leu Gln Arg Gln Ile Glu Asn Trp Glu Phe  
 195 200 205  
 Pro Ser Ser Glu Pro Asp Thr Gln Ile Arg Leu Lys Ser Ile Val Glu  
 210 215 220  
 Tyr His Val Leu Leu Leu Ser Leu Ser Arg Lys Leu Arg Ser Ile Tyr  
 225 230 235 240  
 Thr Pro Thr Val Met Gly Gln Phe Val Ile Thr Ser Leu Gln Val Gly  
 245 250 255  
 Val Ile Ile Tyr Gln Leu Val Thr Asn Met Asp Ser Val Met Asp Leu  
 260 265 270  
 Leu Leu Tyr Ala Ser Phe Phe Gly Ser Ile Met Leu Gln Leu Phe Ile  
 275 280 285  
 Tyr Cys Tyr Gly Gly Glu Ile Ile Lys Ala Glu Ser Leu Gln Val Asp  
 290 295 300  
 Thr Ala Val Arg Leu Ser Asn Trp His Leu Ala Ser Pro Lys Thr Arg  
 305 310 315 320  
 Thr Ser Leu Ser Leu Ile Ile Leu Gln Ser Gln Lys Glu Val Leu Ile

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Arg Ala Gly Phe Phe Val Ala Ser Leu Ala Asn Phe Pro Tyr Arg Leu					
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Ile Thr Leu Ile Lys Ser Ile Asp Ser Ile Cys					
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Ile Met Gly Ile His Pro Pro Gly Lys Arg Thr Phe Trp Gly Arg His					
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Tyr Thr Ala Tyr Ser Met Val Trp Asn Val Thr Phe His Ile Cys Ile					
	35		40		45
Trp Val Ser Phe Ser Val Asn Leu Leu Gln Ser Asn Ser Leu Glu Thr					
	50		55		60
Phe Cys Glu Ser Leu Cys Val Thr Met Pro His Thr Leu Tyr Met Leu					
	65		70		75
Lys Leu Ile Asn Val Arg Arg Met Arg Gly Gln Met Ile Ser Ser His					
	85		90		95
Trp Leu Leu Arg Leu Leu Asp Lys Arg Leu Gly Cys Asp Asp Glu Arg					
	100		105		110
Gln Ile Ile Met Ala Gly Ile Glu Arg Ala Glu Phe Ile Phe Arg Thr					
	115		120		125
Ile Phe Arg Gly Leu Ala Cys Thr Val Val Leu Gly Ile Ile Tyr Ile					
	130		135		140
Ser Ala Ser Ser Glu Pro Thr Leu Met Tyr Pro Thr Trp Ile Pro Trp					

145                      150                      155                      160  
 Asn Trp Arg Asp Ser Thr Ser Ala Tyr Leu Ala Thr Ala Met Leu His  
                                  165                                   170                                   175  
 Thr Thr Ala Leu Met Ala Asn Ala Thr Leu Val Leu Asn Leu Ser Ser  
                                  180                                   185                                   190  
 Tyr Pro Gly Thr Tyr Leu Ile Leu Val Ser Val His Thr Lys Ala Leu  
                                  195                                   200                                   205  
 Ala Leu Arg Val Ser Lys Leu Gly Tyr Gly Ala Pro Leu Pro Ala Val  
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 Arg Met Gln Ala Ile Leu Val Gly Tyr Ile His Asp His Gln Ile Ile  
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 Leu Arg Xaa Val Ser Gly Asn Leu Ile Ser Gln Cys Lys Asn Phe Xaa  
                                  245                                   250                                   255  
 Ser Ile Ser Gly Val Leu Thr Phe Ile Glu Arg Arg Met Tyr Thr His  
                                  260                                   265                                   270  
 Phe Gly Val Pro Asn Ile Phe Ile Val Ile Glu Asp Tyr Tyr Ile Leu  
                                  275                                   280                                   285  
 Phe Leu Asn Tyr Ser Leu Phe Lys Ser Leu Glu Arg Ser Leu Ser Met  
                                  290                                   295                                   300  
 Thr Cys Phe Leu Gln Phe Phe Ser Thr Ala Cys Ala Gln Cys Thr Ile  
 305                                   310                                   315                                   320  
 Cys Tyr Phe Leu Leu Phe Gly Asn Val Gly Ile Met Arg Phe Met Asn  
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 Met Leu Phe Leu Leu Val Ile Leu Thr Thr Glu Thr Leu Leu Leu Cys  
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 Tyr Thr Ala Glu Leu Pro Cys Lys Glu Gly Glu Ser Leu Leu Thr Ala  
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 Val Tyr Ser Cys Asn Trp Leu Ser Gln Ser Val Asn Phe Arg Arg Leu  
                                  370                                   375                                   380  
 Leu Leu Leu Met Leu Ala Arg Cys Gln Ile Pro Met Ile Leu Val Ser  
 385                                   390                                   395                                   400  
 Gly Val Ile Val Pro Ile Ser Met Lys Thr Phe  
                                  405                                   410